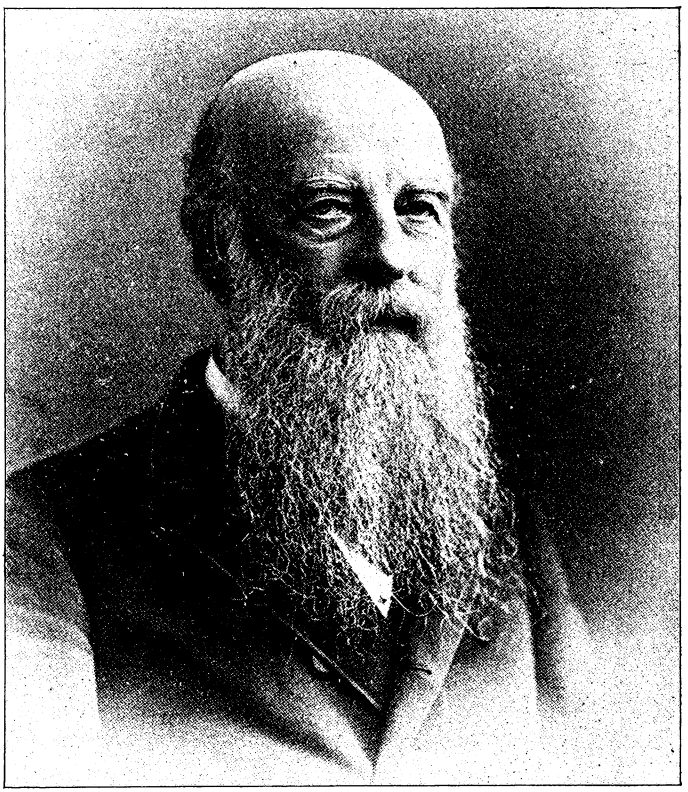


JAMES W. WHITE, M.D, D.D.S.,

Late Editor of the "Dental Cosmos."

ITEMS OF INTEREST.

VOL. XIII. PHILADELPHIA, JULY, 1891. No. 7.

Thoughts from the Profession.

ARE GAS FURNACES A SUCCESS?

In the ITEMS OF INTEREST of October, 1886, will be found an original article treating of, and illustrating, facts relating to hydro carbon or gas furnaces. Five years additional experience in the daily use of various forms of furnaces, enables me to reiterate the same principles and add improved appliances bearing on the same line of practice. In the item referred to, attention was called to the liability of gas furnaces gasing the teeth. This term has in a vague sense been accepted by all those who work in porcelain as a satisfactory definition of the varying effects, observed in the fusing of artificial teeth, not only in coal and coke fires, but especially in the use of gaseous fuel.

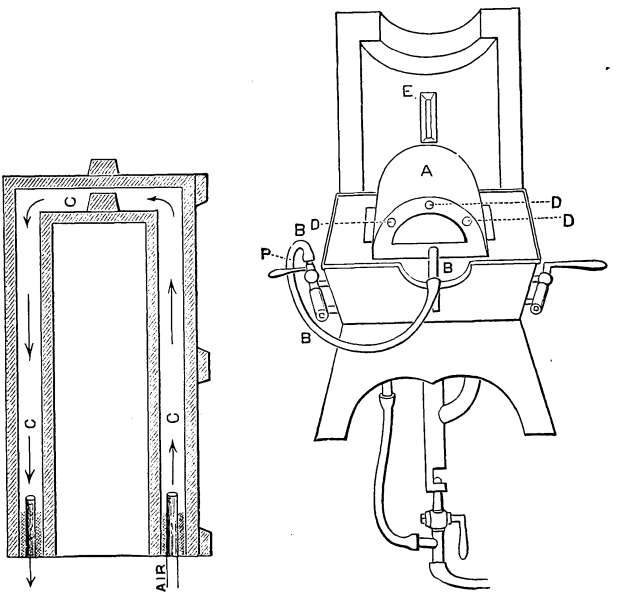
The gasing of porcelain is simply the dioxidizing of the oxides of which the porcelain is composed, and the oxides of the coloring matter they contain. The chemical action that takes place is the combination of carbon which, in uniting with the porcelain, converts the oxides into dioxide of carbon or carbonic acid gas.

In all combustion chambers of gas furnaces, air must be forced into them under a pressure of at least one and a half pounds to the square inch. This current of air mixes with the gas, and when properly regulated, the presumption has been that perfect combustion would take place. Theoretically, the ideal gas furnace should burn all the gases so perfectly that the products of combustion would be pure carbonic acid gas. However, it can be shown that it is utterly impossible to so balance the supply of gas and air as to get this most desirable result; consequently, in the combustion chambers of gas furnaces, even where the utmost care is exercised, we have two or three products intermingled: The hydro carbon

C_2H_4, and in another stage the monoside of carbon CO, and in another stage CO_2. This conglomerate mixture being under a pressure of one and a half pounds to the square inch, in highly heated combustion chambers of gas furnaces, is constantly pressing in all directions, so that when the muffles become cracked or are porous, these gases are forced into the interior of the muffle. Thus, we have carbon set free, which takes place when the temperature is sufficiently high; and when brought in contact with an oxide they unite to form carbonic acid gas bubbles in the porcelain. The excess of carbon may stain blue or even black; this is due to free carbon mechanically combining with the porcelain. This will account for the varying appearance of porcelain teeth, being regulated according to the degrees of heat to which they have been subjected, and the proportion of imperfectly burned fuel forced into the combustion chambers. In my first experience in baking porcelain with hydro carbon fuels to overcome the effects of detrimental gases, a current of superheated air was forced directly into the muffle. This would supply sufficient oxygen to combine with any excess of hydro or monoxide of carbon and convert it into a dioxide, and pass the residue out of perforations made in the rear. This device proved efficient as a remedy to overcome dioxidizing porcelain bodies and enamels. At this stage of my improvements a new complication appeared. I found that occasionally small particles of dust would be blown by the counter blast into the muffles, and when the teeth were in the process of fusion, these would adhere to the glazed surface, leaving small defects. To overcome this I have devised a double muffle furnace; (practically, this consists in providing an interior and exterior muffle having an air space between) the whole being placed within the combustion chambers of a furnace; this intermediate air space is provided with an inlet and an outlet pipe so arranged that a current of air is kept constantly circulating about the interior muffle, which makes it entirely free from contamination with the combustion chamber.

Any free carbon, either conveyed through the presence of the monoxide of carbon or an excess of hydro carbon, has a tendency at high temperatures within the combustion chambers of muffle furnace to give up its carbon, and not only unite with the oxides of any substance placed within the muffle but also combine with the material of the muffle, whether of fire-brick or platina; in the former the muffle is reduced and soon destroyed, and in the latter carbide of platina is formed, so that daily use will, in the course of months, wear out a platina muffle, if exposed to the direct action of a blast. However, by placing the platina muffle within a fire-brick

muffle, and then passing a current of air between, this trouble is entirely overcome, and the muffle lasts almost indefinitely. Also, an inner muffle of fire-brick having an outer muffle to protect it from the flame has shown remarkable durability. Recently, we have been operating furnaces with double muffles from three to six hours a day for upward of three months, during which time exterior muffles have worn out, becoming dioxidized and cracked, while the interior one shows no practical sign of weakness; though the same class of muffles, when exposed to the direct action of the flame, would be destroyed in from eighteen to thirty hours. How much longer the interior muffles will last under such favorable conditions, being constantly enveloped in superheated air which seems to thoroughly protect it, we cannot say.



The engraving, Fig. 1, represents a furnace provided with a double muffle A. B B B is the air blast through which a current of air is passed. Fig. 2, sectional view; C C C (air space between the muffles D D D in Fig. 1) is seen escape flues for the injected air; E is the upper section or cover of the furnace thrown back, being hinged to the base, and when closed forms the upper part of the combustion chamber for the muffles.

The claims for this method as an aid to dentistry is in the more perfect results obtained in maintaining the colors of porcelain

during fusion, and the absolute safety from contamination with the products of combustion, finally solving the problem of baking artificial teeth by means of gaseous fuel economically and practically. *C. H. Land, Detroit.*

[A few weeks since we were much interested in an exhibition of the workings of this furnace. It is small, convenient, quickly heated, easily controlled and admirably adapted to the dentists' use.—ED. ITEMS.]

SOLDERING OF GLASS AND PORCELAIN WITH METALS.

Mr. Cailletet has recently made known to the Societe de Physique a process of soldering glass and porcelain with metals. Machinists, physicists, and chemists will appreciate the practical importance of this process, which permits of adapting any metallic object whatever (cock, tube, conducting wire, etc.) to experimental apparatus in such a way as to prevent any leakage, even under high pressures.

The process is very simple. The portion of the tube that is to be soldered is first covered with a thin layer of platinum. This deposit is obtained by covering the slightly heated glass, by means of a brush, with very neutral chloride of platina, mixed with essential oil of chamomile. The oil is slowly evaporated, and, when the white and odoriferous vapors cease to be given off, the temperature is raised to a red heat. The platina is then reduced, and covers the glass tube with a bright layer of metal. On fixing the tube thus metallized, and placed in a bath of sulphate of copper, to the negative pole of a battery of suitable energy, there is deposited on the platina a ring of copper, which will be malleable and very adhesive, if the operation has been properly performed.

In this state the glass tube covered with copper can be treated like a genuine metallic tube, and be soldered by means of tin to iron, copper, bronze, platina, and all metals that can be united with tin solder.

The resistance and strength of such soldering are very great. Mr. Cailletet has found that a tube of his apparatus for liquefying gases, the upper extremity of which had been closed by means of an ajutage thus soldered, resists pressures of more than three hundred atmospheres. The tube, instead of being platinized, may be silverized by raising the glass covered with nitrate of silver up to a heat bordering on red. The silver thus reduced adheres perfectly to the glass, but numerous experiments have caused platinizing to be generally preferred to silverizing. —*La Nature.*

THE GEORGIA MAGNETIC WOMAN.

Dr. D. T. Smith, of Louisville, Ky., in the *American Practitioner and News*, gives an account of the wonderful magnetic tests of Mrs. R. N. Abbott, of Milledgeville, Ga. This lady is twenty-five years old, and weighs ninety-eight pounds. In an exhibition of her strength in the presence of many of the most noted professional men of Louisville, among whom were Prof. E. H. Mark, Dr. J. Lewis Howe, Dr. H. A. Cottrell and Prof. John S. Barbour, and many others, she performed many feats which are alike astounding to all. In one instance a billiard cue was placed upon the stage perpendicularly, and five men took hold of it to keep it to the floor, while on top of it was placed a heavy man. Mrs. Abbott lifted the entire party by laying her palms against the cue. In another instance, five men utterly failed in their combined efforts to lift her from the floor. She stood erect on one foot, holding a billiard cue in her hands, while four of the members of the committee, after repeated efforts, singly and combined, could not push her from her balance. Many other tests equally remarkable were made, in which the laws of gravity were set at naught.

On different occasions she has been struck by lightning, once having a tooth forced from its socket, while at other times men have been killed by her side.

During thunder storms, or immediately after, she is able to suspend a row of needles from her teeth as from a magnet.

She cannot ride on horseback, as horses become unruly whenever she makes the attempt. In one of these attempts she was violently thrown to the ground and received severe injuries.

In making her tests she is not conscious of the exertion of any voluntary effort. She merely feels that the proper tension exists, and, having placed herself in the appropriate attitude, the particular act is performed. Nor is it necessary for her to be conscious at the time. At one time, when unconscious and under the influence of an opiate, her feet were placed against the bed, she was afterward told, when it was found she could not be lifted.

The committee all declare that there could be no illusion in any of the above tests, as was demonstrated to their satisfaction beyond a doubt. Yet so contradictory to all our notions of the laws of gravity and the understood operations of force are these manifestations, that, not to violate accepted and apparently settled canons of science, we have to make suppositions that are startling in their novelty and boldness.

It is a known fact that magnetism can oppose gravitation, but only by direct resistance, while in the above tests gravity is strengthened and weakened at will. She multiplies the force of gravity when she herself is to be lifted, and destroys it when she lifts others. The question naturally arises, is it magnetic? or in what does this force consist, and what is the nature of the power that enables this delicate woman, virtually an invalid, to accomplish such feats of strength?

FILLING WITH GOLD.

When I look back over my practice of forty-six years, and see how different it was then from what it is now, as well as how other good practitioners operated then, from what good operators do now, and think of the comparative success we had, I feel almost astonished at the results in saving teeth then obtained.

At that time it was a pretty bold thing to file between the teeth as freely as I did, for few did it; but with the then status of dentistry, I am sure it was the best thing that could have been done, and I obtained comparatively good results, for I always tried to so shape the teeth that the proximate surfaces would not fall together.

But do the best I could, many spaces would close and the teeth falling together, would leave a convenient lodging place for the accumulation of food and the secretions of the mouth on their broad filed surfaces which frequently led to decay around the fillings.

Those who did not separate as freely as I did, refrained from it because they did not feel justified in sacrificing so much of the tooth structure, and this conservative idea is good. In the state of the practice then existing, those who filed the least saved the most teeth; but as I look back over my practice and see how many teeth were lost, I know many might have been saved had they been treated in a modern way. Yet, there are things connected with the present method of cutting away teeth that ought to be criticised. To contour, much valuable tooth structure is being uselessly destroyed which can by no possibility be replaced by anything so good. Much of this is unwarrantably done by dentists to make the operation easy.

The first idea of a surgeon should be to preserve as much of a leg or arm as possible, and the dentist should save as much of the tooth structure as he possibly can, consistent with making a good operation. He should conserve when it is not necessary to

destroy. For this reason I find fault with critics, those who advocate the extreme cutting away of tooth structure to contour. I do not desire to be understood as not believing in the practice of cutting away a tooth when it is softened or too frail to withstand the pressure essential to making a good operation, for I am certainly in favor of it; but there is too much destruction of tooth structure by dentists to make their operations easy for themselves. They want an open field to see what they are doing, and use as straight instruments as possible in their operations. Surgeons do not always see what they are doing; they have to be guided much by the sense of feeling, and sometimes cannot do otherwise. The dentist should do the same, and his touch should be so educated, that with properly shaped instruments he can shoot around corners. Though he cannot see the bottom of this cavity without the aid of a glass, he can accurately place the filling material where he wants it, thereby saving much of the tooth structure too often sacrificed.

Too much importance is attached to the idea of making our fillings as solid as possible, or as some express it, like molten gold; for such solidity all through the filling is not essential to the saving of the tooth; nor is it desirable to have fillings so solid as this except at points where it is to sustain the friction and force of mastication. All the solidity that is necessary to prevent decay is to have it dense enough to exclude moisture, and if our fillings fit perfectly to the margins of the cavity, great solidity at these points is not necessary. The essential point is that the filling material shall fit perfectly to the surrounding tooth structure, and the less dense the filling is, so long as it performs this office, the better it is for the tooth; for the less dense the filling is, the less the liability to irritation, the less the tooth will suffer from thermal changes, and consequently the less liable the pulp will be to irritation, inflammation and death.

We have all seen and taken out fillings that we could readily penetrate and pass our excavators through that have been in for many years, and yet when the cavity had been perfectly cleaned this filling saved the tooth effectually. This proves that great density is not essential to preventing decay around fillings.

It is the perfect fit rather than the great density of fillings, that is essential to preventing decay. Of course where friction and mastification occur, fillings should be as dense as possible, but I have seen many teeth ruined by too dense filling.

Much has been said regarding drilling retaining-pits; but retaining-pits are not as essential as many seem to suppose, if we only use the right kind of material for filling and manage them properly.

I seldom make use of retaining-pits and especially at the cervical portion of the cavity.

We old men, who commenced practicing over forty years ago, did not make use of cohesive gold, nor did we know anything of what is now known as retaining-pits. Our gold was all then non-cohesive, and retaining-pits came into vogue after the introduction of cohesive gold, and it is difficult to put in good cohesive gold fillings without these pits, but with non-cohesive gold they are seldom essential. If I make them at all I usually make them under one of the cusps where there is no danger of wounding the pulp, and I pack my gold from that point down to the cervical margin. Nevertheless, I make use of a retaining point which is outside of the tooth.

What I say on this point will be difficult to report, but I am going to try to make it plain. Let us suppose we have a cavity all ready to fill and that my two fingers, which I hold up separated are the teeth, with an proximate cavity in one of them. Now, here is my pocket handkerchief, which I have rolled up in an oblong shape, which represents an oblong pellet of non-cohesive gold, sufficiently large to require a considerable pressure to force it into the cervico-lingual corner of the cavity. Now, I place this handkerchief between my fingers in such a way that a portion of it passes over the lingual margin and on to the lingual surface of the tooth at the cervico-lingual point in the cavity, and at the same time presses against the opposing tooth. At this point I place my finger directly over the projecting portion of gold, and press it securely against the lingual surface of the tooth I am filling, while the pellet is being condensed, the pellet being sufficiently large to rest against the opposing tooth, and my finger or thumb, as the case may be, securely holding the gold, which projects over the cavity in place, while that within the cavity is being condensed. From this point I proceed to pack my gold the same as I would had I made a retaining point inside of the cavity, and when the remainder of the filling is packed there is always a sufficient surplus of gold at the retaining point to condense and finish perfectly to the margin of the cavity at that point.

As I proceed with the operation, if there is any little trouble of the pieces of the non-cohesive gold loosening under the plugger, I mallet down small loosely torn pieces of cohesive gold on to the non-cohesive gold, and then proceed with the non-cohesive gold as before; but I am always careful to place the non-cohesive gold against the walls of the cavity, and when the non-cohesive gold is flush with the margins, use cohesive gold to cover the surface of

the margins. But I commence to pack the strips or pledgets of cohesive gold from the inside of the cavity and let it lap over the margin. In this way there is never any trouble about the pieces of cohesive gold flaking off from the non-cohesive gold, it being secured from the inside of the cavity and packed toward and over the margin. It is next to an impossibility for it to be lost unless the entire filling comes out. I proceed in this way around the entire margin of the cavity, and as I approach the grinding surface I use nothing but cohesive gold. But non-cohesive gold is my reliance against the walls of the cavity, and it can be contoured the same as if I had used cohesive gold for the entire filling, with a greater certainty of the margins being perfect.

While I contour most of my proximate fillings to some extent, I am by no means what might be termed an extreme contourist, for extreme contouring leaves too great a leverage on the filling in masticating to justify it in most cases, and my observation teaches me that many teeth are broken by the force of mastication on extreme contoured fillings. For this reason I do not contour to the extent some others do; such fillings look well and are artistic, but I do not think it to be a safe practice. At the same time a moderate degree of contouring is always desirable.

In regard to using amalgam in connection with gold fillings, I will say that I used to be strongly opposed to the use of amalgam in any form. Up to within about twenty years, I do not think I had ever used amalgam as a filling material in any shape. If there is anything that gives me satisfaction it is to acknowledge my faults, and I wish to say that under some circumstances I now believe a good quality of amalgam to be one of the very best filling materials we have. I, however, never use it at the cervical margin as a base for gold fillings. —*Dr. W. W. Allport, in Dental Review.*

PATHOLOGICAL DENTITION.

That the period covered by the first dentition is that during which the greatest number of deaths occur among children is a fact which is not disputed. It is also a fact not admitting of question that during this time, more than in any subsequent period of childhood, important structural changes are taking place in the organization of the infant, constituting a veritable crisis or critical period. A special liability to an increased nervous susceptibility when other structural and functional changes in the economy are progressing is recognized by all medical practitioners, and is a

reasonable assumption, even if not demonstrable, in the case of the infant, when such notable modifications are taking place. The wonderful mobility of the nervous system in infancy, the tendency to reflex phenomena, the liability to serious disturbances from slight causes, of organic changes from functional derangements, of dangerous reactions from local irritations, are all acknowledged, are all readily explainable, and are all urgent admonitions to the assiduous avoidance or correction of all irritations.

Undoubtedly, dentition is a physiological process, and under favorable conditions proceeds without any disturbance to the health of the child. Surgical or medical interference is then, of course, not to be thought of. But some times local evidences of irritation are unmistakable, in which the gums become tumid, tense, and shining, swollen into little tumors over the erupting teeth; exhibiting redness, induration, and sensitiveness to touch; manifestations of irritation. In addition to such local signs, the child gives indications, in fever, irritability and wakefulness, of systemic disturbance without other recognizable cause; the history revealing that, beginning with evidences of simple uneasiness, it has become by rapid stages fretful, cross, vindictive; refusing to be amused, crying and screaming alternately, and thrusting its fingers into the mouth, or pulling at its ears as though suffering from some overmastering excitement—the flushed face, the compressed lip, the corrugated brow, the clenched hand, testifying to an unbearable torment. If relief is not afforded, what cause for wonder if there presently ensues the exhaustion of irritability, with nausea, vomiting, and diarrhea, or other systemic complications, possibly, nay, frequently, with fatal ending?

That a perversion of the physiological process in infantile dentition may be the occasion of these symptoms, may be inferred from the severe and protracted suffering experienced in some cases from the eruption of the sixth or twelfth-year molars, or of the wisdom teeth. The eruption of these teeth is certainly none the less a physiological process than is that of the deciduous teeth; but, while as a rule the eruption of the permanent teeth is attended with little inconvenience, there is not infrequently considerable swelling of the gums, pain, sore throat, earache, difficult deglutition, and severe constitutional disturbance. In these troubles reliable testimony can be obtained as to the local and reflex troubles, and also as to the effect of treatment. The testimony is that when the operation of lancing is intelligently performed the relief is immediate. What is the unspoken testimony of the child? After hours, and perhaps days of unrest, without other treatment than

the lancing of the gum over incoming teeth, a child will frequently drop at once into a long and peaceful slumber, waking with an appetite, and becoming again the joy instead of the terror of the household. What is the explanation but an acknowledgment that if dentition at a later date, though even in exceptional cases, may give rise to local distress and constitutional disturbance, it is not improbable that the same process may be the occasion of far more serious derangement in the sensitive infant, on whom local irritations act with so much greater severity than they do on the adult.

But the question is constantly asked: Why should the eruption of the teeth, if a physiological process, be the cause of irritation? The answer is, that when the evolution is purely physiological, there is but slight irritation; there are no morbid phenomena, and without doubt many infantile diseases have been attributed to dentition which had no relation to that process. But there are many children whose faulty organization, dietetic management, and general environment preclude the possibility of normal functional processes. Some suffer from neglect and insufficient food; some from too much care and over-feeding. In either, aberrations from normality are to be expected—reduction in the resisting power of the organism and increased susceptibility to depressing influences. The balance—a delicate one—being thus disturbed, functional inharmony created, there is a perversion of physiological processes which mutually react. Thus an aberration of the process of dentition may be the cause of an unfavorable modification or aggravation of a systemic disorder, or such disorder may as reasonably be deemed to exert an unfavorable influence on dentition.

The eruption of a tooth as a physiological process includes the absorption of the tissues overlying it, coincidently with the elongation of its root, and the rising of the tooth in its socket. But when the advance of the tooth is more rapid than is the absorption of the superimposed tissues, the latter act as a mechanical obstacle, the tooth in turn becomes a mechanical irritant to the gums, and the usual results of a continued irritation of a tissue follow. The gums, which in a healthy state are comparatively insensitive, become exquisitely tender; so much so, that in some cases it is manifested whenever the child attempts to nurse. But this condition of the gum tissue is not to be accepted as the only or even the chief explanation of the untoward symptoms which ensue. The backward pressure of the resisting gums on the nervous and vascular supply of the pulp is chiefly accountable for the grave disturbances of health witnessed. If such a backward pressure is conceivable—and what

is there to forbid the thought?—it furnishes the explanation of an eccentric irritation, a local disturbing cause sufficient to account for any disastrous results from its generalization. Assuming, then, that the chief trouble is at the root end of the tooth, caused by compression of its nerve, what measure promises such immediate and complete relief as removal of the tension? Not a scarification of the gums, still written about as though that were what is understood by lancing; not for the purpose of blood-letting; not for hastening the teething, sneered at by a recent writer as though that were the object sought by those who advocate the judicious use of the lance; not as a routine practice, but simply and solely to remove tension—"only that and nothing more." The routinism which never lances is as unscientific as the routinism which always lances, and each is alike to be condemned.

While, as a rule, the evidences of aberration in dentition are to be found in a tumid, congested gum, it is believed there are instances in which, though no local signs justify the diagnosis, the source of reflected trouble may depend on the backward pressure. The partial eruption of a cuspid or molar does not lessen the pressure on or by the gum tissue. The cone-shape of the cuspid maintains the pressure by the inclosing ring, which should be severed on the anterior and posterior as well as on the lateral surfaces, if a question as to the relation of its eruption to reflex troubles is to be settled. So also the points or cusps of a molar may have erupted and yet the resistance of the gum tissue remain operative, and require a severance by crucial or circumferential incisions to release it.

—*Dr. J. W. White, in Annals of Gynecology and Pediatry.*

THE FIRST MOLAR.

There is perhaps no tooth that causes more difficulty than the first molar. There is no tooth that is more important to our patients. The difficulty results from the fact that it is presented in the mouth so early, being the first of the permanent teeth to erupt. We owe more to parents and their children in an educational way with this tooth than with any other, that we may treat it before it is destroyed. It decays oftener than other teeth simply because it is earlier exposed and has worse early surroundings. Decay of the teeth takes place in youth principally. True, we have decay occurring in the teeth of older people, but most decay begins early in life, and this tooth which is presented earlier than the rest is more liable to decay, not because it is less well developed or well organized.

The question of extraction of this tooth is more important than with any other, because of its physiological relations to the development of the jaws. If we extract this tooth soon after it erupts we shorten the face about the width of the tooth. If we extract it before the full development of the jaw, we shorten the face. If we extract on one side of the face, we have inevitably a one-sided face. One side is shorter than the other, and the teeth are slued around literally. These are some of the reasons for especial care in retaining this tooth. There is no other except an incisor in the upper jaw, the loss of which alters the natural expression of the face so much. Now, when a case is presented, the first question, whatever the condition may be is, "Can the tooth be saved? Can it be saved temporarily, or till the other teeth make their appearance?" If that question is answered in the affirmative; if there is a reasonable chance, we should try to save it till the full development of the bones of the jaw, whether it be by capping the pulp, removing it or what not.

In regard to the question of a tooth becoming harder after we remove the pulp; I will say that we have no physiological action between the cementum and the dentine. We have a physical, but not a physiological connection. The dentine is dead when we remove the pulp; the cementum is alive and continually growing. The cementum is not complete when the dentine is complete, at what we term maturity; in fact, the cementum may grow after a person is forty, fifty, or more years old; and become thicker, and will be deposited on teeth that have lost their pulp, and in very many instances in such teeth the apical foramen is completely obliterated by cementum built over the apex.* So far as the physiological action of the pericementum to the cementum is concerned, there is no objection to the removal of these pulps very early. The cementum will continue to develop about the apex of the roots, provided the conditions there are physiological, and not pathological. We may have an extraordinary development of cementum, or we may have no development at all. We may have an absorption of that which is already developed, and following the absorption we may have a re-deposit filling up the gaps, etc.

These points are well shown by sections of teeth. At least a large proportion of those cases in which teeth are united by cementum occur after the death of the pulp. If a pulpless tooth or a

* Is it not possible that, under some circumstances, this cement may grow after death? A queer question; but there are instances in which the hair has grown in the grave luxuriantly, and this cement and the teeth themselves are of the same membrane as the hair.—Ed. ITEMS.

piece of a root be left in the jaw, and by movement comes in contact with the root of another tooth, it may be united to it by cementum. This simply shows how this cementum goes on developing after most of the teeth have been destroyed. Now it is a fact that the dentine becomes more brittle, and therefore the tooth is more liable to break down if the pulp is destroyed very early, mostly because it has more time in which to break down, rather than on account of the difference in its calcification. It is probably true that the tooth becomes somewhat more dense with advancing age, but this increase is so slight that it amounts to but little. —*Black, in Ill. Transactions.*

THE SURGERY OF CLEFT PALATE.

Any part or all of the hard palate may be wanting, with or without its soft mucous covering. However, as a rule, when the hard palate is absent in part or in whole, the mucous membrane is also wanting; especially is this so when the perpendicular plate of the ethmoid is absent, which is frequently the case. When the soft part alone is involved, the rent may be in any direction or in any degree, or absent entirely.

Where the deformity of the hard palate is caused by injury, the difficulty of restoration is not so great, for the requisite amount of tissue is, as a rule, present; and even in many congenital cleft palates the proper amount of bone-tissue is present, but the edges are inverted so as to pretty well occupy the nasal fosse. In such a condition a portion of the rolled border may be divided by a saw or forceps, then brought down and sutured in normal proximity by means of silver wire mounted first by a coil and then by a perforated slot well compressed.

The time for operation is of the first importance. Frequently the success of the operation depends almost entirely on the age of the patient. We take it for granted that all caused by traumatism should be operated on as soon after the injury as it is possible. In congenital clefts the most desirable time is within the first two weeks—within the first week, if possible, after birth.

Dr. Marcy was the first to make a tracheotomy so that the patient might respire while the oral cavity was closed, so that primary union might be secured in a cleft of the soft parts. Though this proved successful, and the patient recovered with practically a normal palate, the propriety of such a procedure is to be questioned so long as results are secured by other means.

To Thomas H. Manley, more than to any other American, credit

is due for carrying into use the suggestions of Maurice Collis, of Dublin. In congenital clefts, Mr. Collis says that the intermaxillary segment may be crowded back into position by fracturing the max illaries. If the septum refuses to yield, a wedge of it should be removed at the point of juncture of the vomer with the ethmoid. The tuft always contains four teeth, the incisors. It is this on which the shape of the mouth depends. The wide deviation of the apposing jaws would render the remaining teeth useless.

By resorting to the foregoing operation not only is the shape of the mouth retained, or rather restored, but the lateral and central incisors are preserved. It may be necessary to chisel away a portion of the adjacent osseous tissues, that close proximity of the parts may be accomplished and union secured. In either event silver wire is indispensable, and should be used with great care. He has made this operation three times, with most gratifying results in two of them; the other failing to unite, sloughed, and was lost. Another plan is to make taut the wire, by a simple coil of wire mounted by a shot through which a hole has been drilled.

These clefts present many interesting features. They undoubtedly take place within the first six or eight weeks of fetal life. Just what the cause is has not been definitely determined.

The most common of these deformities are those where the tuft projects, holding one, two, three, or four incisors.

Where the septum extends to the alveolar process, the tuft extending beyond this with one or more incisors, it is almost impossible to save the teeth, especially if the septum is attached at the alveolar process; however, as we are not able always to determine what the result will be, it is our duty to give the subject the benefit of every doubt, but if in a few years these teeth are found to be incapable of satisfactory use they can be removed. The absorption of the process may be partial or complete.

The dentists have been doing such excellent work that we are many times in doubt as to whether or not deformities of the cleft palate should be taken out of their hands. So far as mechanical restoration is concerned, Dr. Grant Mollyneaux, a resident of our city and one of your number, has done good work.

As to the mode of bringing the edges together, whether of the hard or soft tissues, the best appliance I have seen is the coil prepared by Mr. Armstrong, of Indianapolis, and called the Aveling Coil. It is a secret process, and is probably a compound of silver, platina, and aluminum. It may be allowed to remain in the flesh indefinitely without causing any serious difficulty.

—Dr. Rickets in Miss. V. Ass., reported in Cosmos.

ART IN PROSTHETIC DENTISTRY.

It is in prosthetic dentistry the dentist has the greater field for the use of art. It is for him to so construct substitutes for the natural teeth that they will harmonize with the works of the Creator that surround them, and be so true to nature in size, shape, color and position that they will not produce discord in the facial expression. There is an individuality in everything that God has made. There are no two blades of grass, no two flowers, two faces, two eyes, nor are there any two sets of teeth, that are alike. They may be similar in type, but not in detail, and it is this detail that gives the specific individuality by which we are enabled to tell one from the other. Between these details there is a harmony that makes any one part a fit companion of its surroundings. Any important change in any of these details would—to the extent of the change made—alter the individuality of the original. As there are no two things exactly alike in nature, there can be no exact rules by which anything in nature can be imitated. There are, however, rules which may be aids in producing general outlines, but it is the soul and feeling of the artist that works out the details which gives life to the substitute. A mechanic, pure and simple, may construct a set of teeth and make them serviceable to the wearer, inasmuch as they will fit and be strong and useful in mastication. But only he who has the artistic feeling and skill will be able to select his materials and so adapt them in the mouth that they will harmonize with the complexion and anat omy ofthe face and be true to nature. From infancy to old age there is harmony in contour, as well as in color, and there is change and adaptation of one to the other at every stage of life. The hair that would be becoming to a girl of sixteen, would not be suited to the same person at sixty. Hence nature changes the color of the hair to be in keeping with the face as age advances. The same is true of the teeth; all change and grow old together, and there is beauty in age only as there is harmony. To attempt, therefore, to make the face look younger or more attractive by making any one part of it appear younger than is natural, is a great mistake, for the other parts suffer by an inharmonious contrast which always unpleasantly attracts attention.

In applying this idea to the selection and adaptation of artificial teeth, it will at once be seen how very important it is that he who gives his attention to this branch of dentistry should not only be a good mechanic, but should possess that art feeling that will

enable him to appreciate the importance of physical harmony. If he does not possess this quality, he will be a mechanical dentist only. His work may be useful for mastication, but the face will be apt to look "*toothy.*" To produce this appearance the teeth need not of necessity be too large for the face. In fact, artificial teeth are usually smaller than were the natural, and yet they give the appearance of which I have spoken—as it is usually the inharmonious color, rather than the size of the teeth that is at fault. The first, as well as the most lasting, impression made on the beholder of the individual will be the teeth, whereas they should be so thoroughly in keeping with the rest of the face that they will attract no more attention than any other feature.

One of the prerequisites to the study and practice of this specialty is a talent for and a knowledge of art. The proportion of good artists who could have made good mechanics is very large, while the proportion of good mechanics who could have made good artists is very small. A person may have great mechanical ability, but little or no artistic sense. There are few dentists who have any idea of proportion or feeling for color. This is why we see so many mouths filled with abominably unnatural looking artificial teeth, and this condition of things will never be greatly improved till more attention is given to art in this department of practice. It would be useless to attempt to develop this talent in every dental student, for probably not more than one in twenty-five, or perhaps fifty, could respond to the demand, should they be encouraged to follow dental prosthesis as a calling.

Artistic ability, therefore, should be among the first requisites to the study and in the practice of prosthetic dentistry. It would be far better for those who engage in its practice to have acquired a theoretical, as well as a practical knowledge of the leading ideas of proper proportions, modeling, drawing and harmony of colors, rather than to have studied so much of medicine as is usually taught in dental colleges. —*Dr. W. W. Allport, in Dental Review.*

Miss Alice Perry, of Bridgeport, Conn., awoke a few nights ago under the impression that she was in immediate danger of strangling to death. Her false teeth were nowhere to be found, and a doctor was at once called. The physician found the case grave enough to call in counsel, and the only way to save Miss Perry's life seemed by the operation called tracheotomy. The instruments were obtained, and the operation was on the verge of being performed, when Miss Perry's teeth were found on the edge of her bed.

CAVITIES IN ARTIFICAL TEETH.

Many mark their cavities to be drilled entirely in the proximal wall, overlooking the fact that artificial teeth, especially gum teeth, are necessarily much thinner than natural ones, and that porcelain is a more brittle material than dentine. Such a cavity, penetrating from the side of a porcelain tooth must leave very thin and brittle labial and palatine walls, and the tooth may break in the filling, or afterward in the mouth of the patient. Unless the tooth is quite thick and bulky the cavity should be allowed to come more toward the labial surface. Penetrating from this angle it will allow stronger lateral walls; certainly as it shows more prominently it is usually desired there, but occasionally not. It need not extend far on the face of the tooth but should not be entirely limited to the side.

Some patients desire to have the cavities show as much as possible, and for that reason wish them to be very near the cutting edge. This is a great mistake in a small or thin tooth, and may be carried too far in a large one. The more the cavity penetrates toward the thin cutting edge, the more the tooth is weakened in a manner which porcelain will not stand. The cavity must be undermined, and some of this must go further toward the cutting edge; exactly as in natural cavities in this situation it is seldom possible to get along without a small pit or undercut in this angle.

Cavities should not be very large nor infringe much on the tooth material. The patient may want to show a big filling; but the size and shape of the tooth must be considered. Esthetically a tooth is considered disfigured by large filling. Why then, as artists, should we disfigure our work of art.

As for the shape of the cavity, while a simple ellipse or oval answers every purpose, yet taste may dictate other varieties. Sometimes a patient will insist on having a round hole filled on the face of the tooth. It is easily enough put there, but for looks it is just as natural and beautiful as a mustache dyed black on a strawberry blonde. A very natural looking cavity can be made by drilling a long elliptical hole across the neck of the tooth to imitate the peculiar form of caries which occurs there. It is by no means ornamental, but looks very real.

Have a small assortment of diamond drills which may be obtained of a lapidary or at the depots. Two or three large, to cut out the cavity, and one or two small, to make undercuts, are sufficient. Have some small corundum points and wheels, such as are used on the engine. The work can be done by a dental engine.

The tooth should be secured by cement or attached to a mandrill by heated shelac, or in any other way so that it will not slip and be broken; or if the operator has a good, true lathe head and a large driving wheel so as to get rapid revolution, the work can be better done by using the drills and points on this lathe; holding them by means of a slit chuck and bringing the tooth against them. By this means more control is had over the work and greater force can be exerted on the diamond drills. Whichever method is used, begin with a corundum wheel of the right size for the cavity, and grind out a depression just the shape desired. Take one of the larger drills and drill into this depression in one or two places, running the lathe or engine rapidly, and then extend by working latterally with the drill till the whole depression is thoroughly excavated to the proper depth. Be careful not to get beyond the boundaries of the cavity as ground out by the wheel or the edge may chip off.

Next bevel the edge slightly with a conical corundum point, exactly as the walls of enamel in the natural tooth would be trimmed. This gives a fine smooth edge to pack gold against.

Finally, with a small drill make the retaining pits deep enough to give a good hold for the gold. This work must be done with a steady hand, as a slip will break the tooth. If the cavity was not very deep in the first place, the pits should be joined by working the drill across the bottom from one pit to another; very slowly and with little pressure, or the drill will be soon worn out.

Grooving may be done to save loss of tooth material from deep retaining pits. It does not pay to do it by working with the point of the drill, but it can be neatly done by means of very small wheel points made of soft steel or iron, and used with diamond dust. These wheels can be turned on a lathe from stems of old points, and should be small enough in diameter to go to the bottom of the cavity, resembling an ordinary small bur wheel, and used similar for grooving. Apply the diamond dust with glycerine, and use a minute quantity of the dust, which can be bought in a small quantity at slight expense, and will last for years at this work. Grooving under the edges of the cavity will avoid the necessity of making deep pits and also of connecting them with a small drill.

But for ordinary purposes grooves are not necessary, unless much of this work is done so that it will pay to groove and save wear and tear on drills.

This, then, about sums up a penetrating subject in which there is room for the exercise of ingenuity in improving methods and results.

Dr. O. P. Lund, in Dental Office and Laboratory.

INFORMATION CONCERNING ANESTHETICS.

At the recent International Medical Congress, Berlin, Dr. Horatio Wood, of America, delivered an able address on anesthetics. He showed by charts and experiments that, contrary to the received dictum, chloroform killed by paralyzing the *respiration* as well as that of the heart, and that ether killed by paralyzing the *heart* before respiration had ceased. "The safest anesthetic," he said, "was undoubtedly nitrous oxide. Out of 50,000 administrations only one death had occurred." Dr. Wood regarded ether as safer than chloroform by the ratio of 1 to 3 or 1 to 5. And "the best method of administering ether is by using the inhaler made of cloth stretched across the wire frame, which is surrounded by rubber or leather. You want plenty of *fresh air mixed with your ether.*"

"The reason chloroform is more fatal is probably on account of its greater specific gravity. It lies in the lungs and mixes slowly with the air and completely poisons the nerve centers before oxygen can gain admission to the blood.* Ether is more volatile, and hence less dangerous. Chloroform," he said, "was also less dangerous in hot climates. Probably because it was more readily volatilized."

Dr. Wood cited several authentic cases where the respiration and *circulation* had actually stopped for two minutes and yet respiration and resuscitation were accomplished. He showed drawings of pulsation and respiration, by means of suitable instruments introduced into the carotid and affixed to the chest. The heart had stopped for two minutes and respiration for five minutes, and yet resuscitation took place.

"Alcohol, either as an injection or given beforehand, is absolutely *unsafe*, and does more harm than good."

"Digitalis, to assist in resuscitating a flagging heart, is *valueless.*"

Out of many experiments performed by him, he found that subcutaneous injections of *strychnine* and *artificial respiration* were the great restorative agents. He recounted many instances where recovery occurred after practicing artificial respiration for two, four, eight, and even *twenty-four hours.*

"Use a moderate amount of strychnine, inject if you will saline solutions or ammoniacal solutions into the veins, but use artificial respiration, and you may save most of your chloroform patients."

—*Scientific American.*

* From this cause also, unlike ether, chloroform continues to increase its anesthetic effect for some time after its administration has ceased.—ED. ITEMS.

A WOMAN WHO SWALLOWED HER TEETH.

Nearly two years ago, Mrs. Mary Green, a domestic, then living on State street in this city, declared that her false teeth had slipped down her throat, and that she suffered great distress and pain in consequence of the obstruction.

Physicians who examined her, however, concluded that she was the victim of her imagination, but she insisted so strongly to the contrary, and appeared to experience so much suffering, that the doctors at the Bridgeport Hospital finally consented to perform a surgical operation, and extract the missing teeth if they should be found.

The operation failed to reveal the existence of any teeth in Mrs. Green's interior, and the doctors then felt assured that she had been the victim of only a false fright.

Believing the woman to be the victim of a mental hallucination, and to allay her fright, the doctors performed a second operation, and assured her that they had found the teeth. Mrs. Green was better for a while, but again declared that she felt the teeth lacerating her vitals, and she was sent to the Homeopathic Hospital in New York, her previous Bridgeport experience being communicated to the hospital physicians by the Bridgeport doctors, together with their belief that she was a victim of imagination only.

To satisfy her, another operation was performed at the New York hospital, but the surgeons found nothing.

When Mrs. Green recovered from the effects of the anesthetic, however, a set of teeth were shown her, and she was assured that they were the teeth which she had swallowed. The patient thereafter got well rapidly, and professed to have no more trouble.

The case was freely reported in medical journals and in the press throughout the country as a striking incident of the powers of the human imagination.

Mrs. Green died here of consumption yesterday, and an autopsy by Dr. Blodget revealed the fact that the doctors, and not the woman, had been victims of imagination. The doctor and his assistants found the plate and the teeth in the woman's esophagus, about two inches above the stomach. The curved plate fitted the pipe so well that there was no obstruction to the food as it passed down the throat, and the plate was already partly encysted by a growth of flesh over the edge of the metal.

The physicians believe it to be the only case of the kind on record.

—*From the Bangor Whig.*

A DENTIST'S NOSE BROKEN BY A PATIENT WHILE UNDER THE INFLUENCE OF GAS.

Dr. Maurice B. Smith, a dentist, residing at 1512 South Tenth street, Philadelphia, has had rather a rough experience with at least two of his patients, who, before they had fully recovered from the effects of the gas, made things decidedly unpleasant for him. One of the patients, a stalwart man, measuring over six feet in height, and weighing about two hundred pounds, recently gave the doctor a good trouncing. It appears the man had two teeth drawn while under the influence of the gas, and, when semi-conscious, he made a sudden attack on the doctor. The latter grabbed the man about the body and told him that the teeth were out and to keep quiet. While in the act of drawing away from the patient the doctor was struck, either on the nose or behind the ear. The patient then sprang out of the chair and struck the doctor about the face, knocking him senseless to the floor, and began kicking him. A lady assistant stood by, powerless. The dentist's wife, who was in an adjoining room, heard the noise, ran into the operating room, and caught hold of the patient's coat and tried to drag him away from her husband. The wife was struck in the neck twice by the patient. The latter, after coming to his senses, commenced to apologize, and offered to pay for all the damage he had done. Dr. Ransley, a neighboring physician, was summoned, and, on arriving at the dentist's house, found that the latter's nose was broken, both eyes discolored, and he had several bruises on the head and body.

Dr. Smith, in speaking of the affair, said: "I have just come from the harness maker's, where I have arranged for a series of straps to be placed on the chair, so that a patient will be rendered powerless in case he becomes unruly while under the influence of the gas. The patient that attacked me was evidently dreaming about fighting, and on account of seeing my face last before taking the gas, and seeing only me while semi-conscious, he thought I was the aggressor, and immediately began to pitch into me. The patient, when conscious, offered to pay for all the damage he had done; but, as the damage amounted to breaking my nose and giving me a pair of black eyes, I could not appraise the value. About two weeks ago a patient, while under the influence of gas, imagined he was in a fight, and made a dive for his back pocket. I caught his arms and held him while my lady assistant extracted a loaded revolver from his back pocket." —*Ledger.*

CAPPING PULPS OF TEETH.

[From Dental Mirror].

I cap exposure of the tooth pulp with plaster of Paris mixed with water, in which small quantity of fine earth had been dissolved. This capping, while being a non-conductor, is highly absorbent and non-irritating. I sometimes mix this refined earth with cement filling. I fill over this capping with gutta-percha temporarily, when, after a month without irritation, fill permanently. I have frequently removed capping and found pulp in good condition. I have employed this method of capping for less than one year, and the results have been highly satisfactory, a very large percentage of the cases having been successful so far. In youth the pulps seem to have greater recuperation, however, and more vitality, and consequently adopt the capping with less objection than in past or middle age.

B. C. Russell, Keene, N. H.

I cover the exposed pulp with asbestos felt slightly moistened with Fletcher's carbolized rosin. I fill at once, putting oxyphosphate over the felt, and then gold or amalgam. I have removed such filling and found pulp alive and healthy. I expect success always where the pulp is healthy and the patient hardy, because the felt will protect the pulp from pressure of filling and thermal changes or shocks. Age has but little to do with success.

L. S. Straw, Newburgh, N. Y.

As a Southern dentist, it hardly seems right for me to express an opinion on this subject, as at the last meeting of the Southern Association it was unanimously shelved for thirty-five years, and the editor of the *Mirror* seemed to approve it by voting very loud.

If the pulp bleeds, I do not cap; I used to cap but stopped; I cap only slightly exposed and nearly exposed pulps. I used to fill, sometimes the same day, next day or next week, but don't now. My percentage of healthy exposed pulps (non-bleeding) is fully 85 per cent successful for five years—estimate on teeth alive and not paining for five years. Have not noticed much difference in age, but have in families.

C. Bunting Colson, Charleston, S. C.

Generally speaking, I fill exposed pulps with oxyphosphate; then refill with more substantial filling, some months later, leaving a coating of old cement filling over pulp. I have often found pulp perfectly healthy, but do not remove capping to discover the state of pulp, as it is not necessary to do so. Success is more sure in young and middle age. Temperament is a great consideration; where lymphatic temperament predominates, never cap, always kill, as in such recuperative power is feeble. The nervous and nervo-bilious temperaments are most favorable.

F. T. Gibson, New York.

Cap with gold leaf and fill with oxyphosphate. I remove part of cement in about three months and fill permanently if the tooth had given no annoyance in the meantime, and responded quickly to heat and cold. I have never removed filling to discover if the pulp was alive, but have resorted to other equally effective methods of determining this point. I have

known in some that pulps were alive many years after being capped. Persons of middle age and past are best subjects for capping.

W. E. Pinkham, New York.

I cap immediately with a paste made from iodoform and 1-3000 bichloride placed over the pulp; immediately after that oxyphosphate. If there is no trouble I fill permanently in two or three months with gold or amalgam. I never had an occasion to remove filling or capping unless the tooth ached. I should think eight out of ten cases are successful by this method. Age and temperament have quite a little to do with the successful capping of nerves. *W. R. Blackstone, Manchester, N. H.*

Healthy pulps may be successfully capped in the majority of cases if great care be exercised in performing the operation; yet many pulps will die if irritated. The physical condition of the patient may be so low that a wounded pulp cannot recuperate, and its death therefore will ensue. I cap, using gutta-percha slightly softened by heat, in contact with the pulp, molding it so that it will lay close to the base of cavity, but not press against the exposed pulp. On the gutta-percha I place oxyphosphate to form a solid base for the filling. I usually fill the cavity full of oxyphosphate and let it remain several months. If no pulpitis occurs within a year, the cavity may be filled with gold. I am unable to say just what per cent of such pulps live, but think the per cent of successful cases warrants the practice of capping. I regard youth as a period most favorable to capping pulps, as at that time the pulp is larger, and the foramen at apex is larger; so, therefore, the circulation of the pulp is not so likely to be arrested as later in life, when the pulp and apicial foramen have become constricted. When congestion of the pulp occurs in the teeth of the aged, its circulation is more likely to be arrested in consequence of the very small size of the apicial foramen. *T. W. Brophy, Chicago, Ill.*

I fill healthy pulps, if favorable; mercurial, alcoholic and hemorrhagic diathesis are unfavorable. I cap with asbestos paper or fine cork touched on under surface with Lano-Creolin ointment. I cap at once, using upper pad of Flagg's hard gutta-percha between cap and filling. I have very little success with patients over twenty. Success is due to selection of young pulps, care in manipulation, and nursing of tooth for weeks afterwards by avoiding use. I have no faith or success in capping aged pulps. Prefer, however, to try all and fail than to use arsenic indiscriminately. Supposed successes may only indicate mummification, and mummies do not tell tales. During la grippe epidemic in Montreal all exposed pulps seemed to resent conservative treatment at once. *W. Geo. Beers, Montreal, Can.*

I fill healthy exposed pulps immediately with trial filling. I have any number of teeth whose pulps were exposed and capped, which I know to be alive and healthy; at least 75 per cent of recent exposures.

I endeavor to apply a capping to an exposed dental pulp which will produce no chemical or mechanical irritation to the delicate tissues against which it rests. Aside from the fact that there are many exposed pulps whose healthful powers are sufficient to make almost any kind of capping an acceptable part of their habitation—as there are physiques whose vital energies enable them to withstand injuries and treatment which would kill ninety-

nine out of a hundred—the large percentage which ultimately die after receiving what is termed "the most skilful treatment," is sufficient to stimulate, in the minds of those who have the courage to pursue a treatment which is fraught with so many failures, a desire to make every operation fulfil the exacting requirements of nature. In considering these requirements let us draw a lesson from nature, who tells us in phrophetic language by the care which she has used in constructing this home of the dental pulp, that it is a frail and delicate structure which she has housed so closely. If we could examine a recent pulp exposure, with a high magnifying power, we would find as great havoc as would occur if the roof of our own house was suddenly staved in. We would find the osseous borders sharp and irregular, the delicate lining destroyed, and, possibly, the tissues beneath torn and lacerated. With the natural tendency of the dental pulp to engorgement on the slightest irritation, it would certainly be an unthoughtful and ruthless hand that would bridge over such a rupture, leaving a space into which the tissues could be forced to beat out their life on the sharp and ragged edges; or on the other hand to attempt the reconstruction of this beautiful wall of nature with some substance, the chemical and physical quality of which could but act as an irritating substance, to say nothing of the possibility of forcing such a substance through the exposure to remain as a rough and irritating nodule—all of which, unless under the most vigorous restorative powers of nature, must ultimately destroy the life of the pulp. My treatment is as follows: The rubber dam having been applied, open the cavity of decay sufficient for easy manipulation and remove all caries with the exception of that which is not wholly disorganized, immediately covering the pulp. Dry thoroughly with warm air and wipe out cavity with a weak solution of tannin in glycerine, to remove débris and stop hemorrhage. Follow this with some one of the mild essential oils, then cut a small disk of writing paper sufficient to entirely cover the pulp, and place on it a globule of Canada-balsam that has been evaporated till it will not run while cold. Soften this by warmth, immediately place over the exposure, and perfectly adapt the paper to place with a ball of cotton wound on a broach and dipped in eucalyptol. This will also dissolve and remove the excess of Canada-balsam. I then cover with thin oxyphosphate and leave it for several weeks to test the operation before final filling. If the operation is skilfully performed, the space will be entirely filled with a substance that rests against the pulp without pressure, and with a surface that is smooth—slightly antiseptic and absolutely non-irritating to the most delicate tissues. What becomes of the Canada-balsam ultimately, I will not attempt to say, but this I do know: I have pursued this method for nearly twenty years with such results that no record of others, however dark, will prevent me from continuing it.

Calvin S. Case, Jackson, Mich.

Was Carlyle thinking of teeth when he characterized the present age as one of sham? If so, he knew what he was talking about. In a compensation case, a dentist in Ludgate Hill deposed that he had 20,000 patients on his books, and that he had supplied over 100,000 sets of teeth during the time he had been in practice.

—*Pall Mall Gazette.*

A DESPICABLE ADVERTISING DODGE.

The New York *Recorder*, imitating the advertising methods of the New York *World*, has commenced a series of articles, "prepared by the Industrial Descriptive Department" of that paper, "to stimulate business" in the dental line.

I received a cunningly-worded circular, prior to the publication of the first paper of the proposed series, signed "A. Wrinkell, M.A., M.D.," etc. (quite a heavy tail, by the way, to what appears to be a light kite), from which I extract the words quoted; informing me, also, that "it would be of especial advantage to you" (me) "to permit us to refer to your house" (Great heavens! "our *house!*" How that tail does wag!) "in the articles, and that the price" (and this is just where the "nigger" is seen in the fence) "for such reference is seventy-five cents a line."

Accompanying the circular is a slip of wretchedly poor paper, on which the title of the subject to be treated is printed as follows:

The Dental Art—Synthesis, Dentists of Antiquity, The Roman Methods of Preserving the Teeth, Modern Progress, How Teeth are Made, The Improved Methods Employed, New Discoveries and Appliances, Anesthetics. THE MOST NOTABLE MODERN DENTISTS., ETC., ETC., ILLUSTRATED.

Well, the promised article appeared in the Sunday edition of the *Recorder*, May 10th, and must have afforded no little amusement to the intelligent dentist into whose hands it may have fallen. The writer starts out with a compilation of stale facts, derived mostly from dental journals or text-books, and winds up with a sickly parade of the names of "the most notable modern dentists"—so distinguished for having contributed seventy-five cents a line to the writer for the space required to confer upon them this honor!

The entire paper develops a reprehensible effort in the direction of illegitimate newspaper journalism, and will, without doubt, be so considered by the profession in this city.

W. E. Blakeney, New York.

Copper amalgam in itself may not be injurious to the general health, but when combined with oxygen, an oxide is formed, for which acetic acid has a great affinity, and sub-acetate of copper is formed, which is a very active poison. Let us not follow the course of many who, in their efforts to restore the health of their patients, do so at the sacrifice of the teeth. On the contrary let us not destroy the health of our patients to save the teeth.

—Dr. Miller, in Rochester Dental Society.

WHAT SHOULD BE DONE?

EDITOR ITEMS: — A patient, without previous complaint, was suddenly attacked with a violent ache in the left side of the lower jaw. I found both the third molar and the bicuspid badly decayed; the first so far gone as to demand extraction, which was immediately done. The bicuspid was treated with the hope of saving it, but the pain so increased I extracted this also, yet little relief came. For three months the annoyance continued almost incessantly, quieting down occasionally, then breaking out with renewed fury. All my efforts failed, till nature, in its mysterious workings, brought comparative relief. Several times since, the patient has called on me to have treated a supposed decayed tooth, but no decay was there; yet the pain would come and go, shifting from tooth to tooth, till all the teeth in both jaws seemed to ache. On several occasions it has been necessary to make separation and fill proximate cavities. Long before the separation is complete, the most violent pain sets in, and requires treatment; tincture iodine with aconite usually relieves it after a few applications, but on repeating the separation the trouble returns.

In Harris' Principles and Practice of Dentistry, page 227, the author quotes Dr. Good as saying, "Odontalgia is often an idiopathic affection, dependent on a peculiar irritability" (from a cause we cannot easily trace), etc.

Whatever it may be—neuralgia, odontalgia, periodontitis, or pulpetitis—it has baffled my little skill, and worried me, not only in my inability to diagnose and to give it a name, but from the fact that I can do so little to relieve the suffering patient. Some scientific gentleman in the profession will no doubt find a name and a cure. *G. W. S. Ireland, D.D.S., Homestead, Md.*

REQUIREMENTS FOR GRADUATION.—The National Association of Dental Examiners require dental students for graduation to attend three courses of lectures, covering a period of three years. This law is inflexible, and applies with equal force to one who has been in practice for years and to one who has never given dentistry scarcely a thought before presentation for matriculation. The purport of the law is to elevate the profession by requiring more thorough preparation. Anything to elevate our calling is laudable; but to place all students, regardless of the difference in their education, on the same level is unjust and exacting, and will debar many

from taking a course who are now practicing, and who feel as though three years is too long a time, considering they have already spent years in office practice.

It would be more reasonable and just to cause all to undergo a rigid examination before entrance, and then place each in the class to which his knowledge and skill entitle him, and turn a great many back homeward, by requiring a better general knowledge before entrance. Let professional qualification insure graduation, be it acquired at home or at college, in one year or more.

It is to be hoped the National Faculties Association will change that iron-clad law at their next meeting, and thereby give some the advantages of a course who are now debarred, but who by graduation may become an honor to the profession.

A. K. Dice, Walla Walla, Wash.

The first American woman to receive the degree of doctor of dental surgery was Miss Annie Deckla Ramborger. Her English education was received at the seminary of the Misses Bush, Norristown, Pa. At the age of fifteen she decided to adopt the profession of dentistry. She applied at the Pennsylvania College of Dental Surgery in this city, but the faculty shook their heads, though they allowed her to pay her matriculation fee. After six months of opposition she was admitted.

Then the students took up the battle. They said her presence would stop them from smoking; that, being a woman and attending anatomical lectures with them, she would deprive them of clear and full explanations of the human organism, and that she took up time at the operations. Strong objections, but she answered: "Science knows no sex."

A year passed, then the male students petitioned the faculty to expel her, which was done. The case was taken into the courts, and long litigation followed. Miss Ramborger won, and was reinstated in the college. She went through the course, took her degree, and branched out as the "First woman dentist." That was sixteen years ago. She now has an extensive practice in elegant offices in St. George's Hall, her patients being of the best families. Makes large profits, an average of $6,000 a year, working nine months out of the twelve, traveling abroad in Europe during the other three. June 2d she will be married to Dr. Walter G. Hammell, of Riverton, N. J., when they will sail for Sidney, Australia. She has sold her practice and signed a contract to retire from dentistry for ten years. —*Chatter.*

CROWNING UNDER DIFFICULTIES.

EDITOR ITEMS:—About three months since a lady of about twenty-five years came to me with beautiful and healthy teeth. Diagnosis revealed the fact that from a blow from a heavy, silver-headed walking cane the upper left lateral had been broken somewhere in the root. I removed the crown and portion of root attached, cutting it out with a lancet. About one-third of the root proved to be attached to the crown, the fracture extending from the labial surface of the root posteriorly upward. I administered gas and removed the nerve from the remaining portion of the root, and filled immediately. I then prepared to attach the same crown to the portion of root left; and, as it was a clean fracture, if the two parts were properly joined they would make a perfect joint. So I fastened a platina pin into the crown, after the manner of a Logan crown, and bored out the root to receive the pin; and, being careful to use the proper amount of cement, replaced the crown in the portion of the root, the same as if it was a Logan crown. The joint was far up in the alveolar process, and I had to use caustic to control the hemorrhage. The daily use of a solution of carbolic acid from cotton fibres on a nerve brooch soon caused the gum to reunite with the periosteum, so that now the operation cannot be detected, and there is not the slightest discoloration of the tooth.

H. J. Ray, Aiken, S. C.

WHAT'S THE TROUBLE—EDITOR ITEMS:—Will some one suggest through the ITEMS the cause and remedy for the condition arising from wearing artificial denture in the following case? A gentleman about sixty-five, healthy, good habits, no sign of humor or canker, complains of a burning sensation in roof of mouth by wearing full upper plate. First had plate made of rubber, "red;" but having so much inconvenience from it consulted a dentist, who recommended gold plate, "and trouble would disappear;" gold, with pink rubber attachment, was tried with same results. Patient wears plate continually, night and day, experiences no trouble at night, other than mouth gets dry, and has to moisten it, but no burning sensation. From one to two hours after breakfast trouble commences, but is not continual, ceasing somewhat, but never entirely, and then comes on again. Feels nothing of it when eating dinner or supper, but commences soon after each meal. Wears lower plate with no trouble. Mouth looks perfectly healthy, no redness.

F. W. Smith, Gilman, Ill.

BE CONGENIAL.—This good advice is given by the editor of the St. Louis *Medical Mirror* to another editor. Its application should be general: Drop unkindness; drop this kicking disposition; drop this readiness to jump upon all that does not please you.

There are many things in life that are not always pleasing to us, but you will find out, if you live long enough, that the rôle of the reformer, taking one consideration after another, is not always a happy one, and recorded unkindness of word is poor business.

"If you have a friend worth loving, love him. Yes, and let him know that you love him, 'ere life's evening tinge his brow with sunset glow.' Do not wait long before cultivating friends, or you will find yourself as you approach the down hill side of life tending in the direction of an ungraceful old age, sad and lonely, with no one to speak a kind word for you.

"If you hear a song that thrills you, sung by any child of song, praise it. If you hear a prayer that moves you by its humble pleading tone, join it. If you see the hot tears falling from a brother's weeping eyes, share them. If a silvery laugh goes rippling through the sunshine of a face, share it.

"If your work is made more easy by a friendly, helping hand, say so. Speak out bravely and truly, ere the darkness veil the land. Should a brother workman dear, falter for a word of cheer, give it to him promptly, clear.

"Scatter thus if you can your seeds of kindness, all enriching as you go—leave them. Trust the good Father who will make each seed to grow, so till its happy end your life shall never need a friend."

GOLD WITH AMALGAM FILLINGS.—I find great satisfaction in using this at one sitting. I would use a matrix for gold and amalgam every time. I start in with a layer of amalgam, then use good old crystal gold till it will pack solid. I then finish the filling with any gold I wish. I use crystal gold, as it will take up the surplus mercury and form a union with the amalgam. The cervical margin is made of amalgam, and the union between the amalgam and gold is almost as perfect as it would be if the filling were made of cohesive gold. The finish is as nice as any gold filling I could put in there.

Copper amalgam to me is dirty looking stuff to fill teeth with. With amalgam and gold—I get the cervical margin made of amalgam—the adaptation is better. I get no fractures at the cervical

margin, and I also have gold for finishing which is more presentable, and I find in my practice that gold and amalgam conbined, finished at one sitting, is one of the most satisfactory fillings I insert. I have never found any other kind of gold do as well as Watt's crystal gold. —*Dental Review.*

NEW PERIL FOR DENTISTS.—A young woman with the toothache went to the dental parlors of Dr. George J. Baab, 164 East Eighty-third street, New York, recently. Dr. Baab was not in, but his brother Frank, who is studying dentistry, was. The young woman said she had a decayed wisdom tooth. She didn't want it extracted; she only wanted the pain assuaged. The student told her to take a seat, which she did, assuring him again that she didn't want the tooth pulled. She was very nervous, and young Mr. Baab had just put his finger on the tooth when it gave a throb that caused her jaws to join each other with great speed. They were stopped by Mr. Baab's finger. He jerked it away, and the skin was seen to be broken. The young woman was very sorry. She said her tooth was better, and went away. The slight wound healed quickly, but subsequently the young man's jaw worked as if it needed oiling. Dr. Henry Von Musits, 1266 Lexington avenue, was called in. He said Mr. Baab was in danger of lockjaw. Later the victim of the young woman's agony couldn't talk and his case looked rather serious, as only about 10 or 15 per cent of those who get lockjaw ever recover. But he soon began to improve under treatment, and it was said that he would recover. Safety from lockjaw, however, is not assured. —*Recorder, N. Y.*

SMOOTH-SURFACED RUBBER PLATES.—Dr. S. L. Edwards, of Des Moines, Iowa, makes this by covering the cast with Japanese tea lead and burnishing it into all the inequalities, while the shellac varnish is drying. That gives it a smooth, hard surface after the teeth are articulated. Now adjust another plate over the entire lingual surface, just above the wax line, and burnish round the teeth to prevent the plaster from working between the lead plates while flasking. When set, remove the wax with clean hot water. When you close the flask insert an iron wedge by each bolt, the thickness you desire the plate, and you will have a smooth plate on both surfaces, the thickness of the wedge you place between the two points of the flask. —*Dr. T. A. Robinson, in Register.*

TOLERATION.—Mrs. E., who had been wearing a full upper and lower denture for four years, recently brought to my office a large amalgam filling which had found lodgment in her mouth the previous night. Six years ago this filling had been lost, and supposedly swallowed with food; and now this self same truant appears, a witness, pointing to the toleration of foreign substances by the tonsil glands. —*Carl T. Gramm, in Archives.*

AN ARKANSAS LADY DENTIST.—Mrs. Fannie Cooper, of Cynthiana, Ky., was the only lady member of the graduating class of the Ohio College. Mrs. Cooper has spent two years at this college, during which time she has been a general favorite with the students for her queenly, womanly ways, and with the faculty for her devotion to her studies and high class standing. At the commencement she was quite a favorite of the audience. Mrs. Cooper has the honor of being the first lady graduate of a college of dental surgery from the State of Arkansas, and does her State honor in her high attainments. She will locate and practice at Little Rock, Ark., where her husband, Dr. T. Y. Cooper, also a graduate of the Ohio College, is a leading dentist. —*Archives.*

PEROXIDE OF HYDROGEN TO ARREST HEMORRHAGE AFTER TOOTH EXTRACTION.—Mr. Bennett mentions peroxide of hydrogen as a remedy for hemorrhage. From time to time it was necessary to inject it up sinuses, and if in inserting a probe slight hemorrhage was caused, the instant the peroxide was introduced bubbles were given off and the hemorrhage stopped. Having noticed this, he had used a twenty per cent. solution for arresting hemorrhage, with the result that the blood was staunched immediately.
—*Dental Record.*

When buying peroxide of hydrogen it is very important to secure a reliable preparation that is fresh and free from impurities. Marchand's is the most reliable. —*Editor of Ohio Journal.*

COMPLIMENTARY.—The profession in America has never received a higher compliment than that given by the distinguished President of the late International Congress, Prof. Virchow, when he said: "The American medical world to-day excels in surgery, midwifery and dentistry. What the Germans know about dentistry they learned from America." American oculists also shared his praise.

After this it will be more amusing than ever to see the medical snob assuming airs because he has seen Europe.
—*Texas Courier-Record.*

ANCHORAGE FOR GOLD FILLINGS.

Notwithstanding the fact that points of anchorage for commencing gold fillings are often condemned by men of authority as useless, many times injurious and always dangerous, it is an indisputable truth that cohesive gold fillings cannot be inserted with certainty of a close adaptation to the walls of the cavity unless the first piece of the gold is securely and immovably fastened. It is my opinion that many well-condensed, beautifully-finished and polished cohesive gold fillings become failures from a lack of attention to this one essential point. When a filling has once shown signs of rocking or tipping, it is far safer to remove the whole mass and start again than to try to remedy the trouble by wedging in at the sides. The only sure way to prevent rocking is to securely fasten the first piece of gold, and even this is not always a preventive.

—*Editorial in Southern Journal.*

We do not know everything about the habits of insects, and this has been recently demonstrated by the discovery of an insect which eats iron. In one of the provinces in France steel railroad rails were constantly giving out, apparently rusting rapidly, so much so that accidents happened frequently. Finally, after repairing over and over, they were examined microscopically, and there insect life in all its forms, from the egg to the full-grown insect, was discovered, and they destroyed the iron.

Dr. Ottolengui.

This reminds us of the following from the *Scientific American:*

LEAD PIPE PIERCED BY AN INSECT.—K. Hartmann, in *Gesundheits Ingenieur*, January 15th, 1891, relates a case in which a lead pipe was cut through by an insect that was actually found with its head in the hole pierced by it. A workman was called in to repair a defective pipe which had been injured on a previous occasion, as was reported, by a "nail-hole" occurring in a soldered joint. This time the worm (a wood wasp) causing the mischief was found *in situ*. The hole on the exterior of the pipe was of a rounded form, about one-quarter of an inch long by one-eighth inch wide, and the penetration was through the entire thickness of the metal. Though of rare occurrence, well-authenticated instances of similar injuries by insects are on record.

EDITOR ITEMS:—I notice in May ITEMS Dr. Campbell, of Cooperstown, N. Y., manufactured combination plates in 1863. I also manufactured several in '63, many of them are now worn. I manufactured aluminum plates attached in the same manner as rubber.

S. Babcock, Springfield, Ill.

THE DEADLY CIGARETTE.—Two more meet us in the news columns to-day: John Dawson, the fourteen-year-old son of Alderman Dawson, of Cohoes, who was attacked with spasms of the heart, and died before medical aid arrived. His heart had been wrecked by cigarette smoking. Also, James Matthews, a ten-year-old boy, at Union Hill, N. J. Dr. Byrnes, who attended him, certifies that his death resulted from nicotine poisoning.

Under the new law of the State of New York, the police and police magistrates of this city are now arresting and punishing juvenile cigarette smokers under, or apparently under, sixteen years of age. —*Sanitary Era.*

PARAFFINE IN OXYPHOSPHATE.—Dr. Geo. Evans says: A few weeks ago, Dr. Bonwill made the statement that he had discovered the means of entirely preventing the decomposition of oxyphosphate fillings by thoroughly saturating them with heated paraffine, which melts at a much lower temperature than wax. I have not tested it conclusively, but I think the idea is a very valuable one. I had occasion to put in some of these fillings some time ago, in teeth the pulps of which were very nearly exposed, and I thought it a good opportunity to make a trial of paraffine as suggested. I shall continue the test, and watch carefully the conditions. Dr. Bonwill claims to get very good results from its use, saying that it renders the surface of the filling and interstices around it impervious to the action of acids. —*First District So. in Cosmos.*

Amalgam can be used to great advantage under many circumstances, and made to serve as good and often a better purpose for the preservation of teeth than gold, and at much less cost. The custom with many dentists, of charging a dollar for an amalgam filling, however large or unfavorably located, is absurd and unprofessional, and is an abuse of a meritorious article.

It is the indifferent, thoughtless and daily abusive use of amalgam that has caused prejudice to the extent that prevails. We should try to be conscientious in the discharge of every professional duty, and whatever we do try to do it well. If we use amalgam, we should not do it sneakingly or feel ashamed of it, and when with amalgam or other material we have obtained a good result, let us be proud of it and commend it as it deserves.

A tooth well preserved with gold is not more credible to an operator than a corresponding tooth well preserved with amalgam. In the result lies the merit. —*Dr. B. F. Arrington, in Southern Journal.*

Dr. C. M. Wright says copper amalgam is the most uncertain of all amalgams.

Dr. J. Taft says: I question whether the feeble affinity between the mercury and copper is not the cause of its waste. The copper is very difficult to amalgamate. The affinity between the mercury and copper must be increased before we can depend on it. I cannot see any special advantage in it as a filling-material.

Stop all the salivary ducts with bibulous paper. Then place enough inside the mouth, over tongue, to quite fill it up, so that when tightly closed the teeth will not come together. Instruct patient to keep the mouth closed tightly; this will allow the cheek to be well pulled back by placing a piece of bibulous paper in the corner of mouth, and using one or two fingers. Now tuck a ball of the paper well back behind the tooth and proceed as best you can. If the gum bleeds it is well to press aside by large pieces of carbolized cotton in cavity for several days, till edges heal. Keep the cavity and roots dry till filled. By adopting this method first for the roots, then the crown, allowing the patient a rest between operations, you can succeed very well in cases where you cannot use rubber dam.

Gordon H. Claude, Annapolis, Md.

Cutting away the distal surfaces of the second temporary molars may be a serious injury. The inter-proximate space between the permanent and the second temporary molar is shortened that much. The first molar will crowd forward against the temporary molar and you will lose that much of the inter-proximate space, unless means are taken to maintain such space. Some of the worst failures that dentists are making to-day is their failure to preserve these inter-proximate spaces, giving patients trouble in their after-life, and breeding irregularties. —*Dr. G. V. Black, in Illinois Society.*

HOT WATER FOR SLEEPLESSNESS.—A most wretched lier-awake of thirty-five years' standing, who for ten years has thought himself happy if he could get twenty minutes' sleep in twenty-four hours, said: "I took hot water—a pint, comfortably hot, one good hour before each of my three meals, and one the last thing at night—naturally, unmixed with anything else. The very first night I slept for three hours, turned round and slept again till morning. I have faithfully and regularly continued the hot water, and have never had one bad night since. Pain gradually lessened and went; the shattered nerves became calm and strong, and instead of each night being one long misery spent in wearying for the morning, they are all too short for the sweet, refreshing sleep I now enjoy."

—*London Spectator.*

The dentist often shows his teeth without opening his mouth.

It is said the easiest way to clean rubber shoes of any kind is to rub them with vaseline.

Dr. Watson (Canandaigua) sometimes uses balsam in chloroform to retain the first piece of gold—a sort of "starter."

ITEMS comes to us like a ray of sunshine every month, and is not allowed any rest on the shelves during the year.

Fairfield, Me. *Frank A. Knowlton.*

My opinion is that THE ITEMS is the best dental journal published in this or any other country. Long may it live.

E. G. Ellis, Missoula, Mon.

The sacrifice of a tooth is caused more from the ignorance of the dentist than the desire of the patient to have the tooth extracted.

Dr. Cormany.

The Seventh District Dental Society of New York had a successful session last month. This is becoming a popular professional gathering, and their sessions mean business.

EDITOR ITEMS:—I made a set of teeth a few months ago for a lady ninety-one years old. It was her first attempt to use artificial teeth, and she has used them without trouble.

Dr. P. L. Ellis, Swanton, Vt.

I have taken the ITEM OF INTEREST from its beginning in sheet form, fourteen years ago. I think it the best dental journal for good, sound, practical facts, and high toned sentiment and advice that is printed to-day. *W. H. White, Damariscotta, Me.*

FOR PYORRHEA ALVEOLARIS.—10 grains tannin, 1 oz. carbolic acid, 3 to 4 oz. glycerine. Shake well, and apply to the gums twice or oftener a day, rubbing it well with the finger. Much of the benefit may be derived from the hard and frequent rubbing of the gums in connection with the use of this lotion.

—*J. W. Phipple in Archives.*

EDITOR ITEMS:—On behalf of the students of Vanderbilt Dental College, I write to express our sincere thanks for your interesting and very instructive journal, which you have so kindly furnished us while connected with this institution. Your valuable periodical has been of great benefit to the entire class, and your liberality is gratefully acknowledged. *R. D. Griffis, Nashville, Tenn.*

People who have dental work done (exclusive of extracting) begin their names with the letters of the alphabet thus:

A = 9	H = 28	O = 7	V = 3
B = 53	I = 1	P = 26	W = 36
C = 53	J = 8	Q = 1	X = 1
D = 20	K = 16	R = 21	Y = 2
E = 16	L = 22	S = 46	Z = 1
F = 15	M = 45	T = 13	
G = 22	N = 9	U = 1	

J. W. Greene, Chillicothe, Mo.

WHO INVENTED THE CHASE COMBINATION PLATE?—In 1861, in Havana, Cuba, I made, for a Cuban official, a full upper set of teeth, attaching the teeth to an atmospheric gold plate with hard rubber, first soldering platina brackets to the ridge. Some years after I saw, in the *Cosmos* a full illustration of the same method, for which a patent had been taken. I just laughed, for I thought any fool must know that it was neither new nor novel. Awful smart, some of these patent "fellers" are! *U. Smith, Fresno, Cal.*

EDITOR ITEMS:—I see by an article in May ITEMS, under the head of "Monthly Gossip," that the author improves on Dr. L. H. Henley's use of gold foil in joints of vulcanite work.

He recommends the use of a good cement, and to grind the joints V-shape, to convenience the use of enough to give strength to the body, I suppose.

Any one who has had occasion to observe knows that in six months after it is placed in the mouth there is nothing in the place of the cement but filth.

I use tin or gold foil where Dr. Blakeney uses cement. It takes very little, and yet is effective.

F. G. Corey, D.D.S., Council Grove, Kan.

EDITOR ITEMS:—In May ITEMS Dr. C. H. Campbell of Cooperstown, N. Y., in speaking of Dr. L. P. Haskell's remarks concerning the "Chase combination plate," expresses a desire to hear from any dentist who made combination plates previous to 1863. If he will refer to Richardson's Mechanical Dentistry, page 664, he will find the following in reference to the combination of porcelain teeth to a metallic base by means of rubber or celluloid: "The credit of its first introduction to the notice of the profession is due Dr. P. G. C. Hunt, of Indianapolis, Ind., who practiced the method as early as 1859," etc. Father made metallic palates, with rubber covering the alveolar border, as early as 1859, though the article in Richardson only mentions plates covering palate and ridge both. *G. E. Hunt, D.D.S., Indianapolis, Ind.*

Our Question Box.

WITH REPLIES FROM OUR BEST AUTHORITIE S ON DENTISTRY

Address all questions for this department to DR. E. N. FRANCES, Uvalde, Texas.

Question 16. *The propounder of the following does not think filling of root canals necessary in saving pulpless teeth; believing the canals will keep sweet and clean, when empty, if the crown is perfectly filled and roots disinfected. He wishes the opinion of others, and sends the following question: "Is a thoroughly aseptic or disinfected root canal when filled perfectly from apex to crown in good condition to save it?"*

If the root canals are thoroughly cleansed and permanently disinfected, with some reliable material, it is not important that they be filled.

C. N. Peirce, Philadelphia, Pa.

I mostly use oxyphosphate for root filling, but have perhaps more frequently carefully cleansed and disinfected the canal thoroughly, and filled cavity and root as far as practicable. If there is a space unfilled in the root, I have never found any harm to result. It is certainly preferable to drilling to the apex, or beyond, as is sometimes done; in fact, I prefer not to take the risk of forcing the filling beyond the apex, as I have seen severe results in such cases. *J. H. Batchelder, Salem, Mass.*

There are three chief reasons for not leaving any part empty:

First. The tooth will become dark, caused by blood or other fluids escaping from their vessels, carried through the apical foramen by capillary force, filling the pulp chamber and becoming absorbed by the dentine.

Second. Because it is apt to become sore and feel uncomfortable, when pulp chamber can hold no more absorbed matter, and absorption or abscess is liable to follow.

Third. Because, should the filling ever leak, there would be a larger surface of dentine exposed to attack, and a consequent rapid dissolution of the tooth without the knowledge of the patient, or else with the knowledge of a painful abscess. *Gordon H. Claude, Annapolis, Md.*

Because the "thoroughly aseptic" condition into which a pulp canal may be rendered is only a transitory one, which disappears in a comparatively short time. The putrifactive process is then resumed, and, the pulp canal being open, it becomes a receptacle for gas thus produced or generated, and sooner or later, either chemically or mechanically, or both, the periosteum covering the ends of roots becomes irritated, and then follows (unless relieved) all the stages from irritation to suppuration.

[This subject is altogether too large to *write up* in answer to a question, as fully as perhaps it should be; but I have given you in a few words an answer for your correspondent to ponder over at least.]

Frank Abbott, New York City.

I think by my experience he is entirely mistaken. My method is to use iodoform and cajeput oil, with Brainard's embroidery silk (white on cards); cut pieces off as I wish it. First, I carefully and slowly, by several sittings, cleanse the roots, not shutting them up tight till by pressure the silk can be tightly forced into the root without pain or abscess. In a week or two I fill root with gutta-percha pink points, made by myself, with iodoform and cajeput oil on the end of point. Press this up tightly as possible and leave another week or so. If cavity is filled with amalgam, and there should be shrinkage, the gutta-percha filling in roots will prevent trouble.

I have used these methods at least five years without varying, except I might use eugenol at times in treating. In one case of an upper right lateral incisor the root was in such a condition that treatment seemed a failure, but the tooth was finally filled successfully, and has remained in a healthy condition for a year, without pain or abscess, which she had never been free from before treatment for three years. I am sure the tooth could not have been saved if I had not used gutta-percha and iodoform in filling canal *thoroughly*. In case of lower molar, so bad that the bottom of cavity was through in three places, the above treatment has been successful for two years. *Henry S. Abendschein, D.D.S., Baltimore, Md.*

Question 17. *A lower wisdom tooth has buccal cavity with decay extending under the gum. How can it be kept dry to remove pulp, treat and fill?*

It can not be kept dry unless it is an extremely favorable case.
Frank Abbott, New York City.

I should not attempt to keep the wisdom tooth dry, from the condition described. *C. N. Peirce, Philadelphia, Pa.*

There can be no fixed rule. The operator must exercise his own ingenuity; often the patient can be of much assistance by holding the tongue down with the finger, covered with cloth or bibulous paper.
J. H. Batchelder, Salem, Mass.

It is a difficulty thing to do in most mouths. Sometimes I use napkins for keeping tongue down and stopping secretions, also use bibulous paper for stopping secretions from Steno's duct. Clamps and rubber dams are sometimes useful, but extraction is often best.
H. S. Abendschein, D.D.S., Baltimore, Md.

I generally use a small napkin placed on the opposite side of tooth, and if the saliva accumulates very fast, which it does in most cases, take pledget of cotton, saturate with a solution of persulphate of iron, place this over the duct of Steno; this will cause the mucous surfaces thus brought in contact with the iron to contract, the same being a powerful astringent. By this partial protection against the saliva, you may, by the exercise of quite an amount of patience, be able to accomplish the filling satisfactorily. But I think if it was my patient I would advise extraction.
A. H. Lee, D.D.S., Washington, D.C.

Monthly Gossip.

BY WM. E. BLAKENEY, D.D.S.

SPECIALISM, says the *Cosmos*, is being recognized as the inevitable outcome of the extension of medical art and science.

DR. H. HOFHEINZ says, he never fills proximal cavities back of the cuspid with gold, without protecting the cervical wall with tin.

THE use of oxyphosphate, in place of retaining pits, seems to give great satisfaction and is being practiced by many of our ablest dentists.

DR. CHARLES B. ATKINSON, of New York, is of the opinion that "were proper food properly assimilated" disease would be unknown.

DR. L. ASHLEY FAUGHT is of the opinion that a more healthy tone could be imparted to dental colleges if their boards of trust tees were composed of their own local alumni.

A VERY instructive paper on "Creolin," by Dr. E. O. Otis, of Boston, appears in the Boston *Medical and Surgical Journal*. It should be carefully read by those who use this valuable drug.

DR. TOMES, in his able work on "Oral Surgery," contends that irregularity, especially the saddle-shaped arch, is due to tonsillitis or some throat trouble, causing the child to breathe through the open mouth.

"HEAD-WORK is best," says Professor J. S. Wright, "which most clearly and logically leads to the betterment of those around us." A noble sentiment, and how much better the world would be if it was the inspiration of human action!

DR. WILLIAMS, in the *International*, recommends a solution of chloride of lime, which is allowed to remain a short time in the cavity, for obtunding sensitive dentine. The doctor claims that this process is neither complicated nor dangerous.

OVER-MEDICATION is as much to be deplored as no treatment at all. Dr. Cowan cited a case, before the Rochester Dental Society, of congested condition of the gums through the use of myrrh, after a cure had been effected. Its the old story—too much of a good thing.

THE *International*, for June, publishes a paper read before the New York Odontological Society, by Professor Carl Heitzmann,

entitled "Structure of Protoplasms," which deals in a masterly manner with a question now developing mental activity among profound thinkers in the two hemispheres. Those interested in microscopical research will find plenty of sound material in this paper for intelligent thought.

THE results obtained in the use of Professor Koch's tuberculin by Dr. Karl Von Ruck, director of the Winyah Sanitarium, for lung diseases, at Asheville, N. C., published in the *Medical Record*, encourage the hope that the new German method of treating consumption is a valuable means for the cure of the disease. The doctor finds that "Professor Koch's lymph has a specific and selective effect on tubercular tissues—an effect curative, indifferent or injurious, depending on the judicious or indiscriminate use of the remedy."

DR. RICHARD C. NEWTON read a paper entitled the "Physiology and Pathology of the Second Dentition," before the New Jersey State Dental Society, at its last annual meeting, which deals logically with questions of importance to the profession. The doctor claims that by the eruption of the first permanent molars we are to judge of the completion of what may be called the first great physiological period of life, and that the morbid conditions and diseases of adolescence are due to the second dentition.

J. T. CRAWFORD, M.D., D.D.S., publishes, in the *Headlight*, some excellent maxims for parents to observe in the care of the teeth of their children. The following, however, we take exception to: "As a rule," the doctor says, "never extract one sixth year molar for a patient under sixteen years of age without extracting all four of them." In exceptional cases, which are exceedingly rare, this plan might be expedient, but, as a rule it would work permanent injury to the child: We much regret that so able a man as Dr. Crawford should tolerate, much less advocate, a principle so utterly at war with conservative practice.

DR. OTTOLENGUI says that he "informs his patients, as he goes along with the work done for them, exactly how much service is being rendered, and that we should charge in proportion to the benefit which the patient receives." Now, a doctor's prescription might be the means of saving a parent's life, and if the Scriptural saying be true that "all a man hath will he give for his life," and the doctor should insist on the settlement of his bill on this basis, the poor fellow's family might suffer from the want of bread. If Dr. Ottolengui gets paid for his services, as he claims, being a well equipped dentist, he must receive some pretty big fees.

DR. WM. CONRAD, of St. Louis, speaking of the removal of broken instruments from root-canals, claims that "nitric acid is one of the most certain means we have to use, though the danger in its use makes care a great necessity. I believe," the doctor adds, "I can remove any steel instrument from a root by its use," which he applies in a diluted condition and with a gold broach wrapped with cotton. The difficulty in removing barbed broaches left in the roots has been puzzling to the brain of the writer on many occasions. Nitric acid may be the most effective agent to solve the difficulty, but we should hesitate a long time before using it, fearing its effects on the tooth structure.

WE extract the following beautiful passage from a paper read before the Pennsylvania State Dental Society by Henry Leffmann, M.D., D.D.S.: "Dentistry has enjoyed among all the specialties of medicine which might be called an 'evolutionary' advantage, it originated without the domain of medicine proper, and has been growing into it slowly, and as when some town or country, with special political privileges, annexing itself to a larger territory, carries with it by agreement certain rights, so the science of dentistry is vouchsafed a degree of independence much greater than is accorded to those specalties which are just budding from the parent stem. No one is disturbed at the conferring of the special degree of doctor of dental surgery; but the corresponding degrees of doctor of ophthalmology, otology, dermatology, are yet in abeyance, and the proposition to confer them meets either with opposition or indifference."

THE DENTAL PROTECTIVE ASSOCIATION.

DEAR SIR:—The enclosed is a brief review and summary of the recent litigation of the International Tooth Crown Company *vs.* Edward S. Gaylord *et al*, recently ended by a unanimous decision from all the Judges of the Supreme Court of the United States, in which the Richmond Crown Patent and the Richmond Patent on Preparation of Roots for Crown were declared invalid. This is the case that the Dental Protective Association of the United States took up and defended in the Supreme Court, in association with, and at the request of, Dr. Northrop's committee. I will state that by the result of this decision all forms of Richmond crowns are now open to the dental profession for manufacture and free use, as well as the Richmond method or process of preparing roots for his crowns, which was a patent for freezing and cutting off the tooth and driving the pulp out, and immediately

filling the end of the root at one operation. The substance of the decision of the court is as follows:

That what Richmond had done before the taking out of his crown patents disclosed substantially whatever invention there was in his crown, or process of making, and this invention had been in successful use over two years before being patented, consequently had been dedicated to the public. Some later changes in construction were made the claim for sustaining the patent; the claim being that only after these changes were made was the invention a success, and that it was in use only as an experiment before, to which the court said:

That whatever changes were made as appearing in these patents, from what existed before and was known to modern dentists, was not invention in the eye of the patent law, but simply the mechanical skill of a skilful dentist.

While this decision is of incalculable value to the dental profession, it must not be forgotten that the decision does not end, by any manner of means, the litigation between the International Tooth Crown Company and the dental profession. That company owns some twenty-five or thirty other patents relating to dentistry, some of these being in suit. One of these patents, known to the profession as the "Low Bridge," was sustained in Judge Wallace's United States Court in the Southern District of New York, some four or five years ago, and before the Dental Protective Association of the United States was organized. And the Dental Protective Association is now engaged in an extended and expensive contest in the Federal Courts to secure its defeat, and to have the same judicial declaration of invalidity declared against it by the United States Courts, as has just been obtained on the cases referred to.

We stated in our former circular that any one not a member of the Association before May 15th, if sued after that date on the Richmond Crown Patents, would not receive the defense of the Association; but as we have wiped out the Richmond Crown Patents, this limit to membership is removed, and any one not a member can still have an opportunity of joining. We feel justified in saying that it is asking but a little of each one to send in the ten dollars, membership fee, and do their part in this great work, which is so well begun, of freeing us from bondage. The next great battle which we now have with the enemy is in defeating them in suits brought on the Low Bridge Patent, which will be made the basis of another circular and communication, with full information, within a short time. Hoping for a favorable response from each one, I remain *J. E. Crouse, Chairman.*

For Our Patients.

THAT TOOTHACHE.

A flash,
A crash,
A roaring
And pouring—
A thunder clap!
A stunning rap!
My! How the rushing
Black clouds are crushing
Down woods in fierce alarm!
So angry—No; the storm
Is in my head! And whirling,
And bursting, rattling, hurling,
And slashing, thund'ring! My head splits!
My aching, throbbing tooth has fits!
I feel red, lurid lightning flashing!
My tooth aches just like thunder!—crashing
And roaring, swelling, throbbing, grinding. My!
What shall I do? O, my! What shall I try?
A thousand devils—quarreling, fighting;
With red-hot darts my tooth are sighting!
'Tis fearful! I am running mad!
Ye laughing devils, be ye glad
That 'mong your fiery torments
No angry spirit ferments
An aching tooth in hell.
'Tis left for me to tell—
Oh! no; 'tis folly—
I can't tell wholly
What pains that come
With this to some.
But enlist
A dentist
And woe
Will go.

—*T. B. W.*

HISTORIES OF WORDS.

There are many words which we use every day without a thought of their original meaning. Here are a few of them:

Gazette is from the name of an old Venetian coin, worth about a cent and a half—the sum charged for a reading of the first Venetian newspaper, a written sheet which appeared about A. D. 1550.

Excruciating pain, like that of a person "crucified." How carelessly we use this word of terrible meaning!

Milliner, a native of Milan, Italy, once famous for its manufactories of silks and ribbons.

Lord means "bread-earner," *lady*, "loaf-giver."

Terrier is a dog which pursues animals to their burrow in the earth (Latin, *terra*).

Stalwart—that is, "worth stealing"—a war term, meaning, Saxon, a fine soldier worth making captive.

Salary at first meant money given to soldiers to buy *salt* with. In the same way, *emolument* was an allowance of meal.

Muscle, a "little mouse"—referring to its appearance under the skin.

Heretic, from a Greek word, means simply "one who chooses" for himself. In the same way, a *skeptic* is one who searches carefully, and *fanatic*, one inspired. Custom has given all these words an unpleasant signification.

Explode, to *applaud out*, as you "clap out" a boy or a girl in the familiar game of that name. You will find the word used in that way, if you care to look, somewhere in the eleventh book of Milton's *Paradise Lost*.

Expect, look out and forward, as the poor little wife did from the turrets of Bluebeard's castle. One should never say, therefore, "I expect he arrived yesterday." You cannot expect backward.

Dunce. Duns Scotus was the leader of those school-men who opposed the study of the classic at the time of the revival of learning. Hence, his followers were called "dunses."

Good-bye, "God be with you."

A MAN TO IMITATE.—Jack—"How is it you keep in such good spirits all the time?"

Harry—"I think how miserable I should be if I had the toothache."

Jack—"What do you do when you have the toothache?"

Harry—"Think how happy I should be if I hadn't."

—*Harper's Bazar.*

WHAT FUNNY THINGS WE SEE.

A gold filling without a suitable foundation.

A dentist boasting of his professional achievements.

A man biting off more than he can chew.

Pearly white artificial teeth in the mouth of an elderly spinster

A dentist having elaborately furnished parlors and an expensive outfit, without patients.

Speakers at society meetings consuming hours of precious time in a diabolus of small talk.

A dentist making a desperate effort to "articulate," after sampling wine in a fashionable club.

A dentist whose finger-nails are in mourning, and whose linen is soiled, counseling cleanliness of mouth to his patients.

Newly-fledged doctors in the dental and medical professions grasping after the intricacies of science, about which they know nothing, and neglecting the more important common things of their professions.

To see large silver-plated and elaborately wrought signs at the entrance to establishments of medical and dental gentlemen, who protest glibly against advertising one's business.

Intellectual giants of the scientific world squirting newly discovered antiseptics at infinitesimal atoms called living organisms, and all ending in squirt.

The "head of the house" entertaining friends, and an old-fashioned jumping tooth-ache entertaining one of his molars at the same time.

IN MEMORIAM.—She called on her dentist and told him she had decided to have her teeth extracted, and get his prices for making her a set. Then she said: "Would it be any less expensive if I were to bring a plate and have it altered?" The dental surgeon hesitated, but said: "Why, yes, a little, of course. If it were a gold plate it would be the cost of the gold cheaper." "Then," said the lady, "I'll do that. The plate is not mine, it is my mother's, but she will not live much longer." The dentist naturally looked a little shocked, and the fair customer added hurriedly: "It isn't that I care about the money, but it would be a nice way to remember her, don't you think so?" —*Ex.*

HE LIKED IT.

COLONEL ARKINS (*of Denver*)—"Young man, what was that dose you gave me afore you yanked th' tooth?"

THE DENTIST—"Cocaine and whisky, sir."

COLONEL ARKINS—"Pull some more!" —*Judge.*

SNEEZED HER TEETH OUT.

A very mysterious case is just puzzling the wisest heads of the police force.

On German day, Patrolman Lyman Blakely was standing in a crowd of people watching the parade. He noticed that a little woman near him sneezed violently, but, as she was guilty of no actual breach of the peace, he dismissed the sneeze and the little lady from his mind.

On the following day, however, while at police headquarters, he put his hand into a pocket of the same coat that he had worn the day before. Then he withdrew it hastily, as if he had inadvertently touched a snake. He opened the pocket carefully with both hands and peered within.

Other officers, attracted by his strange conduct, perceived that

his look had grown more reassured, but rather puzzled. They were as much astonished as he when he drew forth a set of artificial teeth.

For some time Mr. Blakely had no answer for the questions with which he was besieged, but a sudden light broke in on his mind and relieved him of suspense. The woman who had sneezed! That was it. She had sneezed her teeth right into his pocket and, of course, had never thought of looking there for them.

A few days ago a bright little woman, still young but showing an old womanish flatness about the upper lip, entered the central station hesitatingly, and mumbled a request that she be shown the officer in charge. Sergeant Martin placed himself at her service, and he quickly gathered from her blushes, her indistinct utterances, that she had lost a set of teeth. Mr. Blakely was sent for and produced the teeth which had so strangely come into his possession.

Then a strange complication became manifested. Mr. Blakely thought that this little woman was the same one who had sneezed beside him on German day, but he could not be certain.

The woman declared that she had lost her teeth by sneezing on Germany day, as she was standing beside a policeman who, she thought, might have been Mr. Blakely and might not.

The surprising part of it was that the little woman declared positively that the teeth on exhibition were not hers. She was sure they weren't, and when the policeman insisted that they must be hers, she left them on the counter and went away in a rage.

And now the department is wrestling with the questions:

Did two little women sneeze their teeth into two policemen's pockets on German day?

Was a policeman's pocket the receptacle in only one case of sneezing?

Is somebody wearing somebody else's sneezed-out teeth?

What are we going to do about it?

Blakely still has more teeth than he needs, but he would like to cut them.

Little Johnnie Fizzletop has the habit of waking up every night and demanding something to eat. At last his mother said to him:

"Look here, Johnnie, I never want to eat anything in the night."

"Well, I don't think I'd care much to eat anything either in the night if I kept my teeth in a mug of water." —*Texas Siftings.*

A QUEER CASE OF CATALEPSY.

A DENTIST'S REMARKABLE ACTIONS DUE TO THE INFLUENCE OF A CAT'S TOOTH.

A correspondent sends the following letter to the editor of *Hall's Journal of Health:*

SIR:—A case has lately come to my notice which it occurred to me might be of interest to your readers. You are doubtless familiar with a process in dentistry known as the implantation of teeth, which is simply substitution of a natural tooth in place of one lost, either in its vacant cavity or, as in some instances, by insertion in a new and artificially formed one.

The writer has a dentist friend who was an enthusiast in his profession, and especially in respect to transplantation, and like other devotees to science he did not hesitate to experiment on himself; so he inserted in his own jaw, in place of a newly extracted tooth, a veritable cat's tooth, and waited patiently for results. In time the tooth became thoroughly rooted, but the effect on its possessor was something extraordinary. His whole demeanor underwent a change, and by no means for the better.

Instead of his wonted energy and devotion to business he showed a disposition to lounge about the house during the day, selecting the sofa, divan, easy chairs, or even the hearth rug as a temporary dormitory, where he would lie for hours in a kind of stupor. But no sooner would the night appear than he was all alert, manifesting great disquietude and a desire to roam, particularly in the neighboring back yards, displaying great ability in scaling the fences. He would be attracted by any little scratching noise about the house, while the least movement of an article would cause him to dart forward, with fingers widely, spread to seize it. From being formerly a great lover of dogs, he showed an over-weening dread of them, and on one occasion sought safety by shying up a telegraph pole.

On moonlight evenings he was particularly ill at ease, and insisted on being admitted to the house roof, whence he would wander from roof to roof occasionally emitting sounds in exact imitation of the fascinating imitations which romantic felines extend to one another, but now and then interjecting an angry protest as if spitefully repelling some obnoxious intruder. Finally this state of things became unbearable, not only to the members of his immediate household, but to neighboring families in the near vicinity, and the health of my friend becoming also seriously impaired he was persuaded to sacrifice the presumable cause of his nocturnal eccentricities. Since then, I am happy to be able to state that my friend has partially recovered his former mental status, only now and then, under a fancied provocation, "getting his back up."

"Please, doctor, I have a terrible toothache."

"You have come to the wrong office, sir; I am an oculist; I only attend to the diseases of the eye."

"But, may it please your honor, that is the reason I have come to you; it is an eye-tooth that is aching."

HORSE DENTISTRY.

The other day Dr. R. W. Braithwaite, of Mr. J. W. Booker's stables, performed a very important surgical and dental operation on Tuck Daniels' full-blooded Norman stallion, Pearl. The horse was afflicted with nasal gleet, or necrosis of the frontal sinus of the upper jaw, which was spreading and causing great trouble. The animal was confined, and an attempt was made to draw one of his teeth, which was badly affected. Strong forceps were used, but the tooth was too firmly rooted. The strength of one man was insufficient to move it, and other means had to be tried. The hair from around a spot just above the tooth, which was the fifth upper molar, was removed, and with great care, to avoid cutting three important arteries at that place, a hole was cut through the sinus just reaching the base of the tooth and the seat of suppuration, the product of which was running out of the nostrils and impeding the breathing. Into this hole an iron bar or punch was inserted, and the tooth was driven out by a blow with a hammer, thus giving space to clean the suppurated parts. This was done; only a limited amount of antiseptic wash being used, to aid the bone to clear itself of all impurities. A great deal of decayed osseous matter was removed. The animal, whose breathing had been impeded, now commenced to breathe freely, and very soon ate a good meal, which he had not done for a good while, the necrosis having been present for about eleven months. No chloroform was used in the operation, but the condition of the bone was such that it was, to a great extent, free from nerves, so that the horse was scarcely conscious of the fact of the removal of the tooth, which was a wicked-looking thing, nearly three inches long and over an inch in diameter, with jagged edges. The operation was successful, and the horse will probably be as well as ever in a few weeks. He eats heartily now, and, the source of irritation being removed, is calm and in a condition to recover the ground he has lost by the trouble.

Do I believe in women dentists? Yes, decidedly. Why? Well I had a toothache the other day. I was frightfully nervous. I went to a man. He was so blunt, so rude, in his remarks. I resolved to go home and suffer the torture rather than submit to such treatment. As I was homeward bound I saw the sign of a woman dentist and went in. She was so gentle and sympathetic that she fairly wooed me right into that horrid chair and the tooth was out before I knew it.

Current Notes and Items.

A New Jersey court has established the precedent that a dentist is not responsible for damages when he pulls the wrong tooth.

An Auburn man has had hard luck getting artificial teeth. He has had thirteen sets made within a year, and has just succeeded in getting a fit.

A nice young heiress of this city, having attained her eighteenth year, has been granted an income of $10,000 as necessary to her fitting maintenance. One item of annual expenditure is $125 for dentistry.

The jury in the case of Mrs. Simon Klosky *vs.* P. & T. Tunstall, dentists in New Orleans, for $5,000 damages for injury done to her face while performing an operation, brought in a verdict for defendants.

The great State of California is taking advanced steps in the conduct of its State Society. The program of its coming session, commencing on the third Tuesday of July, covers a large field and is well arranged.

A Kirkville dentist lost a valuable diamond ring the other day in a curious manner. He was examining the back teeth of a patient, when the ring slipped down the latter's throat. The ring has not yet been recovered.

Dr. Arnold uses oxyphosphate to fix gold at the beginning of an operation, and especially in teeth too sensitive to permit thorough cutting; also in cavities with walls so smooth they seem greasy, he uses oxyphosphate as a retainer very successfully.

Dr. LaSalle removed several gold fillings put in years before by one of the best of Rochester's dentists. In effecting their removal he had to dig for something more than gold, which he found on examination to be balsam. Adhesiveness in these cases seems to justify the use of some such material. Dr. Bronson used balsam for this purpose twelve years ago.

A RECENT number of the New York *Independent* contains letters from a large number of the most prominent railway officials of

this country, describing the rules of the several companies respecting the drinking habits of their employés. From these letters it appears that on nearly all first-class railways it is against the rule for a man to take liquor while on duty. If a man is known to be intoxicated when off duty, he is liable to discharge. In general those men have the preference who are reputed to be total abstainers.

MAKING APPOINTMENTS.—Dr. Harlan says one of the best means of securing control over patients, when once confided to your care, is to make appointments by mail. If it happens to be a child, the notice is sent to the parent, and it is understood that unless some reason is given, they will be present. He has appointments running from three to six months and a year. The responsibility of patients is ended when they leave the office. But he sees they give consecutive attention to their teeth. He finds they not only appreciate this, but that it is a good business and prophylactic measure.

G. S. R., of Springfield, O., says: The International Tooth Crown Company is outdone. On May 28th, a patient (a young man) called, suffering from a central incisor. It was in the first stage of abscessing. About a half of the crown was broken off, the remainder badly discolored. The tooth had been *crowned* with oxyphosphate. This was secured to the root by a common brass pin about one inch in length. The tooth had received no other treatment than a good pounding in sending that pin home. The "dentist" had charged his patient the full price of a first-class porcelain crown.

A GOOD WIT.—It is said Dr. Schwenninger, the somewhat quackish physician of Prince Bismarck, owed his selection to a slight display of independence. At his first visit Dr. Schwenninger found his patient in his gloomiest and most hopeless mood. The physician began to catechise the Chancellor about his past life. "That is no matter of yours," said Bismarck; "I want you to deal with my present condition." "If that is the case," said the bold Bavarian, "you had better send for a cattle doctor; he would not be in the habit of putting questions to his patients." He took up his hat and made for the door, but Bismarck, suddenly laughing in the midst of his groaning, laid hold of the independent doctor, and said: "I believe, after all, you are my man."

Over in Berlin a woman's local society is distressed over the carelessness of dentists, and is agitating a reform punishing them by legal measures. It is charged that the dentists use their instruments indiscriminately and without proper cleansing. If this is true the offense is serious enough. A tryo in medical science knows that some mouths are hotbeds of the septic germs; nothing could be more simple and easy than to convey all sorts of disastrous organisms from one person to another by means of forceps and excavators. The women of Berlin will do well to compel the washing of the instruments in carbolic acid in the presence of patients, as they have set out to do, if this extraordinary carelessness exists.

A Bangor, Maine, newspaper tells of a miserly woman in that vicinity who, on the decease of a relative, considered his artificial teeth too valuable to be deposited with the body. Though he had left her $50,000, she brought them to a dentist to be made over for herself. Of course she might as well have wanted his pantaloons, or his coat, or his whiskers, so far as appropriateness was concerned; but, then, they would save her five dollars. She was indignant when refused, and he was more indignant at her cupidity. Still we find men in all businesses that are as low as the lowest—"any thing for the six pence"—and this was not an exception, for a neighboring dentist stooped as low as she had gone to take her six pence.

What wise folks these newspaper men are. Their credulity is beyond bounds. Just let a professional spin a yarn, however worthless, and they run with it to the four quarters of the earth: Here is a specimen:

According to the *Kolnische Volkszeitung*, a Moscow dentist appears to have solved the problem of supplying the mouth with false teeth which will grow into the gums as firmly as natural ones. Dr. Zuamensky has performed several successful operations on dogs as wells as human being. The teeth are made of gutta-percha, porcelain or metal. Holes are made at the root of the false tooth, and also upward into the jaw. The tooth is then placed into the cavity. In a short time a soft granulated growth finds its way from the patient's jaw into the holes in the tooth; this growth gradually hardens and holds the tooth in position. It is stated that it does not matter whether the cavity in which the tooth is placed is one from which a natural tooth has been recently drawn, or whether it has been healed for some years.

The Mexican dentists' charge of $10 an hour is reasonable as compared with the schedule of rates in Chile, where dentists (most of them from this country) cannot be induced to take a patient that will yield much less than $20.

A dentist of Moscow is reported to have discovered a method of supplying the human mouth with false teeth which will grow into the gum as firmly as natural ones. Dr. Zuamensky has performed several successful operations on dogs as well as human beings. The teeth are made of gutta-percha, porcelain, or metal. Holes are made at the root of the false tooth, and also upward into the jaw. The tooth is then placed into the cavity. In a short time a soft granulated growth finds its way from the patient's jaw into the holes in the tooth; this growth gradually hardens, and holds the tooth in position.

[A patent has just been taken out for a porcelain tooth that the inventor claims will become firmly attached to the jaw on the principle suggested above. Little holes are made all over the part of the artificial tooth representing the root, which the patentee claims will be speedily filled with granulations of alveolus process, thus making the artificial tooth permanently firm.—ED.]

Dentist Dana B. Pratt's operating rooms, in the flat on the southeast corner of Seventy-second street and Second avenue, New York, were wrecked recently by the explosion of a copper vulcanizer. Dr. Pratt had a few minutes before instructed the office boy, George Taylor, to put the vulcanizer in operation. In some inexplicable manner the pressure became too great for the vulcanizer and it exploded with a loud report. The heavy brass crown piece flew upward, went clear through the ceiling and continued its upward career till it had passed through the carpet on the floor above, in Mrs. Robert's apartments.

Another section of the vulcanizer went through a vertical wall into the dental parlor, where it demolished a number of glass jars. Still another piece of the boiler struck a laughing-gas tank, which was full of the gas, and punctured a hole in the side. The single window in the room was shattered and blown into the street, and several sets of artificial teeth were blown to the sidewalk or demolished against the side of the wall.

The laughing gas poured from the punctured retort and found its way up through the interior of the building and into the rooms of the tenants, much to their merriment.

Notices.

The thirty-sixth annual meeting of the Michigan Dental Association will be held at Sault Ste Marie, Michigan, August 18th, 19th, 20th, 1891. *J. Ward House, Secretary, Grand Rapids, Mich.*

AMERICAN DENTAL ASSOCIATION.—The thirty-first annual session of the American Dental Association will be held at Saratoga Springs, N. Y., commencing Tuesday, August 4th, at 10 o'clock, A. M.

Geo. H. Cushing, Secretary.

NEW JERSEY EXAMINATIONS.—The New Jersey Dental Commission will hold its next meeting for examinations in Asbury Park, N. J., on Monday, July 13th, at 10 A. M. Persons intending to begin the practice of dentistry in New Jersey must make applications to the Secretary of the Board, prior to June 30th, 1891.

G. Carleton Brown, Secretary, Elizabeth, N. J.

At the twenty-seventh annual meeting of the Illinois State Dental Society held at Bloomington, May 12th and 15th, 1891, the following officers were elected for the ensuing year: President, W. H. Taggart, Freeport; Vice-President, Garrett Newkirk, Chicago; Secretary, Louis Ottofy, Chicago; Treasurer, W. A. Stevens, Chicago; Librarian, F. H. McIntosh, Bloomington. The next meeting will be held at Springfield, beginning on the second Tuesday in May, 1892.

The North Carolina State Dental Association will be a joint meeting with the Southern Dental Association at Morehead City, N. C., August 11th, 12th and 13th. The officers of the North Carolina State Dental Association are: H. C. Herring, President; J. E. Wyche, 1st Vice-President; H. D. Harper, 2d Vice-President; C. A. Rominger, Secretary; J. W. Hunter, Treasurer; J. H. Durham, Essayist; S. P. Hilliard, Supervisor of Clinics; V. E. Turner and C. L. Alexander, Executive Committee; J. W. Hunter, J. F. Griffith, J. H. Durham, E. L. Hunter and V. E. Turner, Examining Board.

We hope to have a grand meeting, and would be greatly pleased to have you present. Come down and see us Tar-heels, and see how we stick. Come! *C. A. Rominger, Sec'y.*

[That would be a great pleasure. We must see if it is possible.—ED.]

The World's Congress Auxiliary, a part of the great celebration to convene at Chicago in 1893, will be an important and profitable feature. It is to bring together the leading men of science, learning and the professions, in the discussions of great questions. The dental profession will be ably represented.

But a few years ago, when we were practicing dentisty in Winona, Mankato was "a border village," noted mainly for its Indians. There was not a dentist for a hundred of miles around. Now we read the following in one of its daily newspapers:

SOUTHERN MINNESOTA DENTISTS.—Mankato, Minn., April 22d.—The Southern Minnesota Dental Association is holding its annual session in this city, lasting three days. The attendance is large, including many dentists from Northern Iowa. These are the officers: President, Dr. C. W. Nutting, of Spring Valley; Vice-President, Dr. E. D. Allison, of Marshall; Secretary, E. L. Hawes, of Mankato; Treasurer, Dr. F. P. James, of Sleepy Eye.

WM. H. ATKINSON, M.D.

The following resolutions were passed by the St. Louis Dental Society:

WHEREAS, The members of the St. Louis Dental Society have learned with deep regret of the sad death of one who has been so closely identified with every advance made by the dental profession during the past twenty-five years; whose honorable career as a professional man has won for him a world-wide reputation, and whose personal qualities secured for him the love of every reading dentist in the world.

Resolved, That the St. Louis Dental Society recognizes the obligation dentists of America owe to the late Dr. Wm. H. Atkinson for the zeal and energy with which he has advocated the many changes which have been for the elevation of his chosen profession.

Resolved, That as a mark of appreciation of the worth of the late Dr. Wm. H. Atkinson, as a man and dentist, these resolutions be spread upon the records of this Society, a copy be sent to the family, and to the dental journals for publication.

WM. CONRAD,
WM. H. EAMES,
J. B. NEWBY,
Committee.

Editorial.

DR. JAMES W. WHITE IS DEAD.

The President of the S. S. White Dental Manufacturing Company was busy at his desk through the day of June 2d, in his usual good health; the next morning without a symptom of warning he fell from his chair dead. Though a few minutes before death he complained of a slight sensation of dyspepsia, this was easily attributed to unusual late work the previous evening.

His uncle, Samuel W. Stockton, originated the business in Burlington, N. J., now become so famous at Twelfth and Chestnut streets, Philadelphia. James W., with Samuel S. White, worked for their uncle for some time, and then Samuel S. White supplanted Mr. Stockton in business, and both brothers came to Philadelphia. The principal business of Mr. Stockton in Burlington, and for some time of S. S. White in Philadelphia, was "The art and mystery of the manufacture of incorruptible teeth;" but the business gradually expanded till it embraced the manufacture of dental supplies generally; and for many years it has been the leading dental supply house of the world. At the death of S. S. White, the business was organized into a joint stock company, and James W. White was made President, a position he retained till the day of his death. He was also known as the literary member of the firm.

Dr. White was also a member of the firm of Hance Brothers & White, manufacturing chemists at Callowhill and Marshall streets, and a member of the Board of Directors of the German-American Title and Trust Company. He assisted at the organization of the Maternity Hospital, and has been its President from its foundation, in 1872. He was identified with the Freedman's Aid Society; an active worker in the Sanitary Fair, and as Chairman of the Committee on Orations and Lectures of that great enterprise, secured the substantial sum of $10,000 toward the grand total. He managed the People's Literary Institute for seven years (before and during the war), and worked energetically in the maintenance of freedom of speech against much and bitter opposition, including

at one time vigorous proceedings by the Mayor of the city. Denominationally he was a Universalist, for many years Moderator of the Church of the Messiah, and also Superintendent of the Sunday-school connected with the church.

Dr. White was appointed President of the Department of Charities and Correction by Mayor Fitler, and organized that department under the provisions of the Bullitt bill. The announcement of his appointment, which was entirely unsolicited, was received with general approval by the press and public. He was removed from that office for refusal to acquiesce in what he believed was a violation of the civil service principles.

As editor of the *Dental Cosmos*, we need hardly refer; his able pen, and wisdom in selection, is known to all.

A short time since we asked him for his photo for the ITEMS. His reply was characteristic of his modesty: "Wait till I am dead." We make it our frontispiece.

Dr. White left $237,369, the property consists of shares in the S. S. White Dental Manufacturing Company, German-American Title and Trust Company, Fidelity Title and Trust Company, of Pittsburg, and Newark, Trinidad Asphaltum Block Company, and other manufacturing corporations, and an interest in the well-known firm of Hance Brothers & White, with life insurance of $20,000, and $18,150 in bills receivable.

He leaves a widow and three sons: Dr. J. William White is Professor of Clinical Surgery at the University of Pennsylvania; Samuel S. White is of the firm of Patterson & White, printers; and Louis P. White is a wholesale jeweler.

DR. C. E. HAWLEY.

Died, in Sheveport, La., June 9th, 1891, suddenly, of paralysis of the heart, C. E. Hawley, D.D.S., in the fifty-first year of his age.

Dr. Hawley was born in Ithaca, N. Y., February 28th, 1840. He was the son of the late Dr. J. E. Hawley, a physician for many years in that place. He went South when about twenty-one years of age, and studied with the late Dr. Russell, of Nashville, Tenn., afterwards went to Natchitoches, La., to practice, where he married

a Miss Boultt. In 1881 he graduated from the dental college at Nashville, Tenn. Dr. Hawley is a brother of S. S. Hawley, D.D.S., now practicing in Newark, N. J., and of George P. Hawley and Mrs. Adeline Gates, of the same place, and Mrs. Col. I. S. Tichenor, of Washington, D. C., and Mrs. Dr. C. N. Hewitt, of Red Wing, Minn. He has been very prominent as a dentist in Shreveport, La., for many years, and a member of the Louisiana State Dental Society. He leaves a widow and six children.

DR. EDWARD MAYNARD.

This distinguished Washington dentist died May 3d, at the ripe old age of seventy-eight years. For about thirty years he was a leading dentist in our National Capital. Besides acquiring an extensive and lucrative dental practice, he was noted for his inventive genius. Many dental instruments and appliances now in use the world over were from his fertile brain and skilful manipulation.

But his inventions extended beyond his professional work. In 1845 he patented a tape system of primers to take the place of percussion caps, that are a great improvement. The Maynard breech-loading rifle, he invented in 1851, has revolutionized the make and use of pistols, rifles and cannons. And this breech-loading feature has led to other improvements by him and others that have become adopted by every civilized nation. Among these may be mentioned improvements in metallic cartridges and their self-acting supply in multiple firing. His double-barreled gun is a specially ingenious piece; so is his latest invented magazine rifle, which not only allows impacking of a large number of cartridges, that come automatically into place in the barrel as wanted, but registers the number left at any given time of firing. Improvements in ammunition also received his attention, with commendable results. Finally, his genius and skill were sought by our most eminent manufacturers of fire-arms and other warlike supplies.

But during all these martial honors and successes, at home and abroad, he lost no interest in his chosen profession. The labor of these inventions was only his avocation; dentistry was his vocation. During his short stay in Russia, so appreciative was Nicholas

V of his dental skill, that he was made Court Dentist. The kings of Prussia, Belgium and Sweden, also, signally honored his genius. No wonder the Baltimore College of Dental Surgery and the National University, of Washington, D. C., vied with each other for his professional services.

One feature in his early manhood turned the course of his whole life from what he had chosen as his life work. But for this, dentistry would not have had his services. By severe study and discipline he prepared himself for West Point. He underwent a successful examination in all departments but one—his health; this was below the standard. But he stood so well in all other respects he was accepted, and found no difficulty in keeping up with his classes. Before his course was completed, however, his health so completely gave way he was obliged to resign.

Is it not singular that such a delicate youth should have chosen the dental profession? and quite as singular that all through his many years of busy practice he should have found himself equal to its demands? Does not this, and many similar examples, show that even the practice of dentistry may be made healthful employment if injurious influences are guarded against?

THE EXPRESSION OF ARTIFICIAL TEETH.

Simply a mechanical dentist may make a useful set of teeth, but only an artist can make a set which harmonizes with the natural features. Artificial teeth that would look beautiful, or at least natural in one mouth, look hideous in another mouth, not so much because the mouths differ, as because the individuality differs. In making a set of teeth, therefore, the dentist should keep in view the temperament, age, sex, and every lineament which goes to make up the whole physical and mental character. Nearly all artificial teeth make too prominent a feature, so that the individual looks too toothy. Another common mistake is to have them too pretty, too regular or too perfect. I once made an upper and lower set of teeth for an old lady, with the grinding surface considerably ground down, and they were dark, and by no means pretty. She soon returned, accusing me of having used second-hand teeth.

"Why see," said she, "how they are worn down, and how they are stained by use? I would suppose some one had been using them for years."

"That is the impression I tried to produce," we replied. "What do your friends think of them?"

"Why, those who know I have been having new teeth, assure me they are not new, but some old woman's teeth that have been grinding food for a life time."

"I admit it was my effort to produce just such a set of teeth," we replied. "What do those say of them who are not your more intimate friends?"

"Nothing; absolutely nothing! I have not received a compliment for them since I have had them."

We assured her that was what we hoped to accomplish.

"Why, sir," she answered vehemently, "I do not comprehend you. Am I to understand that you purposely made them so dark, and worn-like, that no one should compliment them?"

"Yes."

"And yet you have charged me the full price of a new and beautiful set?"

"Yes."

"Then I have to say you have imposed on me, and I feel indignant."

"Mrs. Brown, I judge by those flashing eyes, those flushed cheeks, those sharp words, and these rousing passions you are now revealing, that forty years ago you were attractive in features, and that in the luxuriance of a fiery nature, you could repel or attract, and that these were sure to give you the command of your position. Had you come to me then for artificial teeth, would you not have expected a set that should have harmonized with these characteristics?—light, pearly, artistic, and as translucent as your beautiful skin, and as attractive as your vivacious manner."

"You almost take me back to the days of my early womanhood; but what has this to do with these teeth, so without form or comeliness?"

"Everything. Had I given you teeth now that would have been proper then, they would have been only a reminder of what

you once were; and if in the strength and glory of your beautiful womanhood, I had made you teeth like these, they would only have anticipated the characteristics of old age. Yes, they are dark; and as you look in the glass, are you not reminded that you are losing the youthful crimson and brightness of years gone by? Yes, I have flattened their grinding surface; and does not the harsh file of time and mastication do the same? How did the teeth look I extracted for you? Shall I show them to you,—so worn and so stained; how much they reminded me of their years of labor and of their exposure to the elements of time? Would you have had me ignore all this and give you teeth that looked as though they had not been worn by use nor stained by time?"

"I see it, sir," she finally replied; "I am satisfied; I am getting old, and my teeth show it."

We should select teeth which not only harmonize with the temperament, age and sex, but they should be such, and so set and arranged that they themselves should be a characteristic of the general character. If the individual is light skinned the teeth should be light; if beautiful, they should be beautiful; if the other features are regular, they should be regular, for these are features showing character; if the form and general bony structure are long and slender, so should the teeth be; if these are strong and bold and prominent, the teeth should be strong and bold and prominent; for a person short, thick-set and choppy, teeth with these characteristics should be chosen; and how would a regular, precise, mechanically correct set of teeth look in the mouth of a person angular, irregular and hunch-backed in all other features? We see men and women who represent the rugged mountain, the diversified hill and dale, the beautiful waves of the graceful plain, and the slick cultured garden of roses and apple blossoms, or pink, ripe fruit. It takes a large variety of teeth, much skill in selection and arrangement, and consummate art in adaptation, to meet all these expressions of character. What a lie on the language of nature to put into the jaw of a snarling, biting, ravenous dog of a man, small cuspids; or strong, heavy, prominent incisors to fill out the features of a petit; or pearly white teeth in the mouth of a brunet! As well place bold, flat, square teeth in a tall, stately, refined gentleman;

or slender, narrow-pointed teeth in the jaws of a square-set, broad shouldered Dutchman. If the general bearing and features show the avaricious, cunning and close mouth cupidity of the miser, teeth must be used that shall also be close set, sharp-edged and crowded; but for the liberal, whole-souled, open-hearted philanthropist, who carries love, sympathy and benevolence on every other feature, the teeth should speak the same language. Small, slender, pretty teeth do not belong to a cruel, hard-hearted, selfish character, nor graceful-shaped teeth in the mouth of one coarse, brutal and murderous. The sensuous, vulgar woman of passion is sure to call for square, regular, flat teeth, and the lady of refinement, taste and culture will say, "Please, do not give me teeth that shall be specially noticeable."

It is folly, therefore, for a dentist to expect to choose appropriate teeth from a stock of twenty or thirty sets. It is money well invested to keep on hand a large and varied selection. We seldom allowed our stock to go below five hundred dollars' worth, and even then, often wished we were nearer a dealer. Buy liberally, select carefully, arrange artistically, and never be satisfied till they look natural.

CLASPS FOR PARTIAL DENTURES.

During the first years of our dental practice we observed so much injury from clasps that we felt obliged to abandon them. Happily, the more we strove to avoid them the better we succeeded in making partial sets of teeth without them, and the better we pleased our patients; so that during the last twenty years of our practice we did not use them at all. We generally covered the roof of the mouth with a thin, smooth plate, fitting accurately between the necks of every natural tooth, so that the plate went in with a spring that held it firm. This made a slight pressure against the natural teeth, which was relieved after a few days. The artificial teeth were so set as to bind a little on the outside of the natural teeth.

The English language is spreading so rapidly over the earth, it is to be deprecated that its orthography is left so difficult, uncouth and inconsistent. It is estimated that in ten years it will be

spoken by 1,700,000,000 people, while only 500,000,000 will be speaking other European tongues. As, therefore, English will be indisputably the language of the future, it behooves every intelligent person speaking it to do all that can be done to facilitate its written representation by making its orthography easy, economical and reasonable.

We are slowly simplifying both its syntax and its orthography; but it is singular that, though these changes are universally approved when once established, they are opposed by most of our popular writers while being made. It is only the few determined, aggressive, plucky men who should be credited with these improvements, and yet it is only these who are laughed at and ridiculed, while the masses are gradually molded to adopt the "innovations."

Changes in our language and its orthography are so slow we do not see their progress while they are being established; but by comparing the present with the past they are very apparent. For instance, take the following, transcribed from an English tombstone, and which, from collateral proof, evidently represents the English of its time:

"Man com & se how schal alle dede be: wen yow comes bad & bare: noth hav ven we aware fare: all ys werines yt ve for care."

How changed and beautiful this would appear dressed in the present garb of our language: "Man, come and see how you will be when dead—so bare and drear, not aware how you fare when free from weariness and care."

"The rising generation" in the dental profession are not all wise. A "professional" card sent us of a young graduate announcing himself as "Graduate, Baltimore College Dental Surgery; the oldest Dental College in the world" is proof. In prices he brings himself down to the level of the merest tooth-tinker; in promises he is as fulsome as a street tooth-puller; and in his self-laudation is more self-confident and assuming than a good workman of twenty-five years' practice.